

Access DB# 68097

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Armanda Walker Examiner #: 75663 Date: 8/3/2002
Art Unit: 1752 Phone Number 30 5-0401 Serial Number: 09/835204
Mail Box and Bldg/Room Location: CD3 9B30 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

*Please search for a cyanine dye having the structure of formula I (attached)
Specific examples are shown in claims.
Thank you!*

STAFF USE ONLY

Type of Search

Vendors and cost where applicable

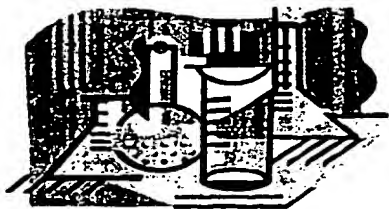
Searcher: K. Fuller NA Sequence (#) _____ STN ✓

Searcher Phone #: _____ AA Sequence (#) _____ Dialog _____

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 Date Searcher Picked Up: _____
 Date Completed: 6/7/02
 Searcher Prep & Review Time: 20
 Clerical Prep Time: _____
 Online Time: 45
 PTO-1590 (8-01) subset search

Type of Search
 NA Sequence (#) _____
 AA Sequence (#) _____
 Structure (#) 2
 Bibliographic _____
 Litigation _____
 Fulltext _____
 Patent Family _____
 Other _____

Vendors and cost where applicable
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 Sequence Systems _____
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 Other (specify) _____



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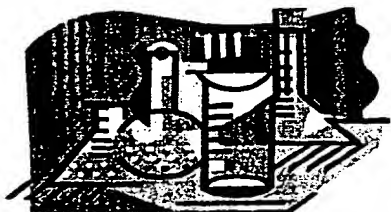


Scientific and Technical Information Center

Search Results Feedback Form

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the searcher whose name is circled below.

Kathleen Fuller 308-4290 Eric Linnell 308-4143 John Calve 308-4139
All searchers are located in the library in CP3/4 3D62



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Search Results Feedback Form

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the searcher whose name is circled below.

Kathleen Fuller 308-4290 Eric Linnell 308-4143 John Calve 308-4139
All searchers are located in the library in CP3/4 3D62

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STRUCTURE FILE UPDATES: 5 JUN 2002 HIGHEST RN 426206-38-4
DICTIONARY FILE UPDATES: 5 JUN 2002 HIGHEST RN 426206-38-4

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

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FILE COVERS 1907 - 7 Jun 2002 VOL 136 ISS 23
FILE LAST UPDATED: 5 Jun 2002 (20020605/ED)

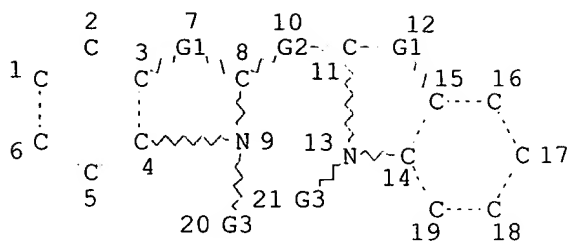
This file contains CAS Registry Numbers for easy and accurate
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CAS roles have been modified effective December 16, 2001. Please
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information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> D QUE

L3 STR

Ak @22



15,258 structures from query

Ak^Cb^Ak
@23 24 @25

VAR G1=C/S
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VAR G3=AK/CB
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DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3 C AT 22

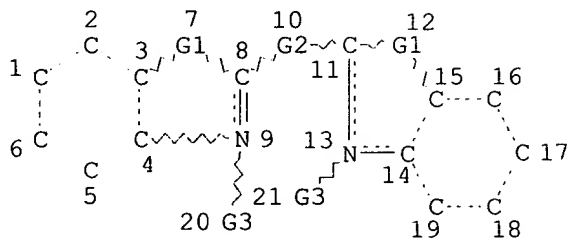
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NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE
L5 15258 SEA FILE=REGISTRY SSS FUL L3
L9 STR

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26 @27 28

Subset search - more exact structure

Ak @22



13,927 structures

Ak^Cb^Ak
@23 24 @25

VAR G1=S/27
VAR G2=22/23-8 25-11
VAR G3=AK/CB
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M3 C AT 22

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE

L11 SCR 2040
 L13 13927 SEA FILE=REGISTRY SUB=L5 SSS FUL L9 AND L11
 L14 8371 SEA FILE=HCAPLUS ABB=ON L13
 L15 341 SEA FILE=HCAPLUS ABB=ON L14 (L) LITHOG? (L) PLATE?
 L16 38 SEA FILE=HCAPLUS ABB=ON L15 AND CYANINE (3A) DYE?
 L17 7 SEA FILE=HCAPLUS ABB=ON L15 AND SOLVENT# AND POLYMER#
 L18 44 SEA FILE=HCAPLUS ABB=ON L16 OR L17

=> D L18 1-44 ALL HITSTR

L18 ANSWER 1 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2002:313329 HCAPLUS
 DN 136:348327
 TI Photopolymerizable compositions showing high sensitivity against long wavelength light and lithographic printing plates
 IN Urano, Toshiyoshi
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-027
 ICS C08F002-50; G03F007-00; G03F007-029; G03F007-031
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

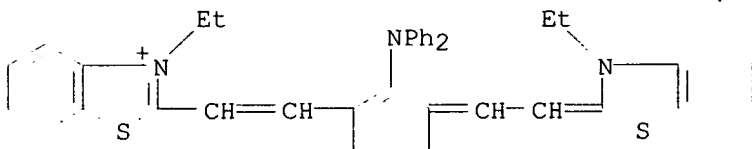
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002122988	A2	20020426	JP 2000-313368	20001013
AB	The comps. contain (A) ethylenically unsatd. compds., (B) cyanine dyes with polymethine chains having amino substituent(s) generating aminium cation by intramol. resonance and having an org. counter-anion, and (C) photopolymn. initiators. Preferable Markush structure for the dye is given. The comps. may contain components B and C in forms of salts of dye cations and organo-borate anions. Lithog. printing plates including a layer of the above stated photopolymn. comps. are also claimed. The comps. are inactive against UV light and are easy to handle under fluorescent lamps.				
ST	photopolymerizable compn long wavelength sensitivity; lithog printing plate fluorescent lamp insensitive photopolymer; cyanine dye photopolymerizable compn UV inactive				
IT	Cyanine dyes Lithographic plates (long wavelength light-sensitive and UV-insensitive cyanine dye -contg. photopolymerizable comps. for prepn. of lithog. printing plates)				
IT	Photoimaging materials (photopolymerizable; long wavelength light-sensitive and UV-insensitive cyanine dye -contg. photopolymerizable comps. for prepn. of lithog. printing plates)				
IT	25086-15-1, Methacrylic acid-methyl methacrylate copolymer				

- RL: TEM (Technical or engineered material use); USES (Uses)
(binder; long wavelength light-sensitive and UV-insensitive
cyanine dye-contg. photopolymerizable compns. for
prepn. of lithog. printing plates)
- IT 415690-80-1
RL: TEM (Technical or engineered material use); USES (Uses)
(dye; long wavelength light-sensitive and UV-insensitive
cyanine dye-contg. photopolymerizable compns. for
prepn. of lithog. printing plates)
- IT 15625-89-5, Trimethylolpropane triacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(long wavelength light-sensitive and UV-insensitive **cyanine
dye**-contg. photopolymerizable compns. for prepn. of lithog.
printing plates)
- IT 417707-85-8
RL: TEM (Technical or engineered material use); USES (Uses)
(photopolymn. initiating dye; long wavelength light-sensitive and
UV-insensitive **cyanine dye**-contg.
photopolymerizable compns. for prepn. of lithog. printing
plates)
- IT 191726-43-9
RL: TEM (Technical or engineered material use); USES (Uses)
(photopolymn. initiator; long wavelength light-sensitive and
UV-insensitive **cyanine dye**-contg.
photopolymerizable compns. for prepn. of lithog. printing plates)
- IT 415690-80-1
RL: TEM (Technical or engineered material use); USES (Uses)
(dye; long wavelength light-sensitive and UV-insensitive
cyanine dye-contg. photopolymerizable compns. for
prepn. of lithog. printing plates)
- RN 415690-80-1 HCAPLUS
CN Benzothiazolium, 2-[2-[2-(diphenylamino)-3-[(3-ethyl-2(3H)-
benzothiazolylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-,
1-naphthalenesulfonate (9CI) (CA INDEX NAME)

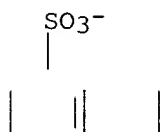
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CRN 328064-12-6
CMF C40 H38 N3 S2



CM 2

CRN 22873-93-4
CMF C10 H7 O3 S



IT 417707-85-8

RL: TEM (Technical or engineered material use); USES (Uses)
(photopolymn. initiating dye; long wavelength light-sensitive and
UV-insensitive **cyanine dye**-contg.
photopolymerizable compns. for prepn. of lithog. printing
plates)

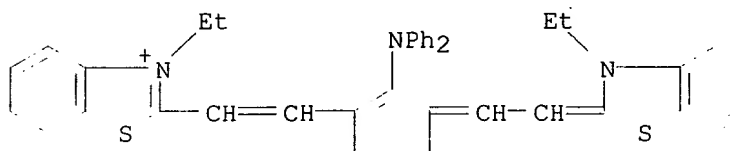
RN 417707-85-8 HCAPLUS

CN Benzothiazolium, 2-[2-[2-(diphenylamino)-3-[(3-ethyl-2(3H)-
benzothiazolylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-,
(T-4)-butyltris(3-fluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 328064-12-6

CMF C40 H38 N3 S2



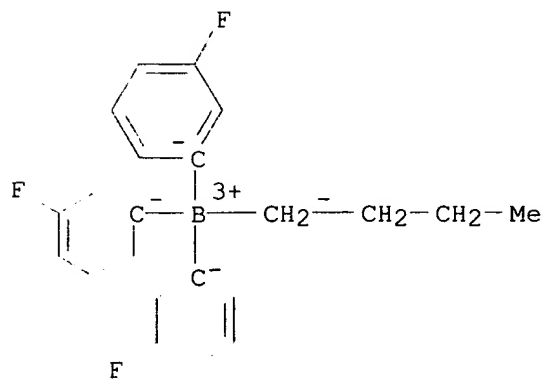
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CRN 191726-42-8

CMF C22 H21 B F3

CCI CCS

CDES 7:T-4



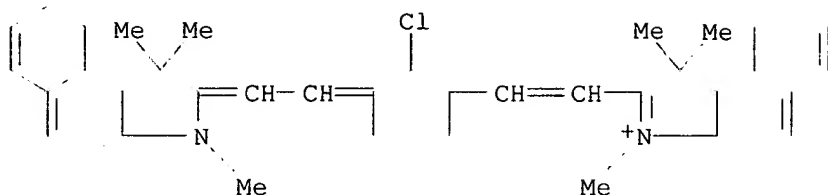
L18 ANSWER 2 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 2002:265348 HCAPLUS
DN 136:316943
TI Image-forming materials for IR laser-sensitive lithographic printing plate precursor of direct imaging
IN Nakamura, Ippei; Oda, Akio
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
ICS B41N001-14; G03F007-00; G03F007-032
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002107923	A2	20020410	JP 2000-301739	20001002
AB	The title image-forming material contains a phenol resin having hydroxy group modified with a IR-absorbing org. groups. The image-forming material shows the good high image quality and the good storageability.				
ST	image IR laser sensitive lithog printing plate precursor imaging				
IT	Optical materials (IR absorbers; image-forming materials for IR laser-sensitive lithog. printing plate precursor of direct imaging)				
IT	IR materials (absorbers; image-forming materials for IR laser-sensitive lithog. printing plate precursor of direct imaging)				
IT	Light-sensitive materials Lithographic plates (image-forming materials for IR laser-sensitive lithog. printing plate precursor of direct imaging)				
IT	9016-83-5D, reaction products with benz[e]indolium-based cyanine dye 134127-48-3D , reaction products cresol-formaldehyde copolymers RL: TEM (Technical or engineered material use); USES (Uses) (gIR-absorbing resin in image-forming materials for IR laser-sensitive lithog. printing plate precursor of direct imaging)				
IT	134127-48-3D , reaction products cresol-formaldehyde copolymers RL: TEM (Technical or engineered material use); USES (Uses) (gIR-absorbing resin in image-forming materials for IR laser-sensitive lithog. printing plate precursor of direct imaging)				
RN	134127-48-3 HCAPLUS				
CN	1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)				

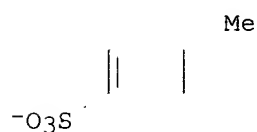
CM 1

CRN 134127-47-2
CMF C40 H40 Cl N2



CM 2

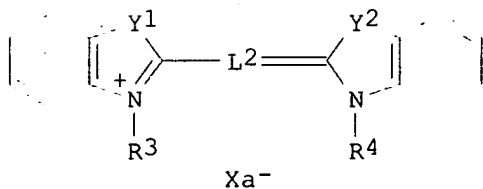
CRN 16722-51-3
CMF C7 H7 O3 S



L18 ANSWER 3 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 2002:176269 HCAPLUS
DN 136:224268
TI Positive-working photosensitive resin composition and lithographic plate using it
IN Urano, Toshiyoshi; Minakami, Junji
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
ICS B41N001-14; C09B023-00; C09K003-00; G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002072464	A2	20020312	JP 2000-255882	20000825
OS	MARPAT 136:224268				
GI					



I

AB The resin compn. contains an alkali-sol. resin and a light-to-heat

converting dye which has a structure of polymethine chain-bonded heterocycles and having aminovinyl bond which resonances to form aminium cation. The **dye** may be a **cyanine dye I**

(Y1-2 = dialkylmethylene, S; R3-4 = alkyl, alkenyl, alkynyl, Ph; L2 = tri-, penta-, hepta-, nona- or undeca-methine group having the aminovinyl bond; Xa = counter anion). Pos.-working lithog. plate using the resin compn. is also claimed. The compn. shows high sensitivity to near IR ray, and gives high contrast images and shows good development latitude.

ST pos photosensitive resin lithog plate; light heat converter
cyanine dye aminium cation

IT **Cyanine dyes**

(pos.-working photosensitive resin contg. **cyanine dye**
with aminovinyl group for lithog. plate)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(pos.-working photosensitive resin contg. **cyanine dye**
with aminovinyl group for lithog. plate)

IT Lithographic plates

(pos.-working; pos.-working photosensitive resin contg. **cyanine dye** with aminovinyl group for lithog. plate)

IT 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer
328064-07-9

RL: TEM (Technical or engineered material use); USES (Uses)

(pos.-working photosensitive resin contg. **cyanine dye**
with aminovinyl group for lithog. plate)

IT 328064-07-9

RL: TEM (Technical or engineered material use); USES (Uses)

(pos.-working photosensitive resin contg. **cyanine dye**
with aminovinyl group for lithog. plate)

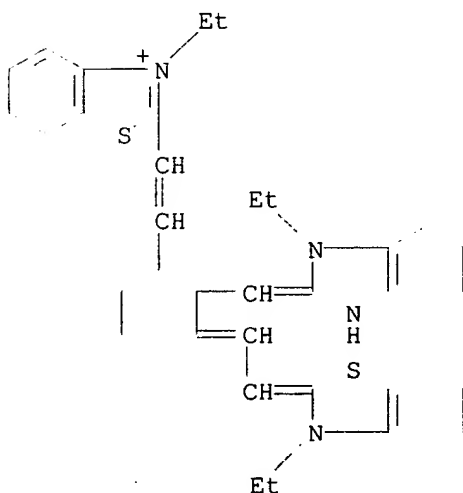
RN 328064-07-9 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[3-[(3-ethyl-2(3H)-benzothiazolylidene)ethylidene]-2-[(1-ethyl-1,3-dihydro-2H-benzimidazol-2-ylidene)methyl]-1-cyclohexen-1-yl]ethenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 328064-06-8

CMF C38 H39 N4 S2



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

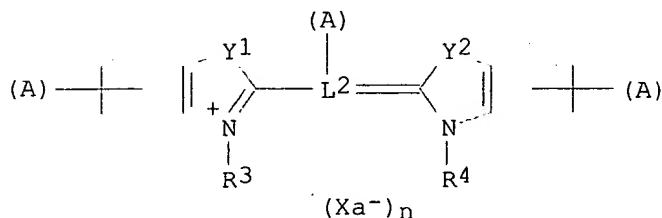
Me

-O₃S

L18 ANSWER 4 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2002:176268 HCAPLUS
 DN 136:224220
 TI Positive-working photosensitive resin composition and lithographic plate using it
 IN Urano, Toshiyoshi; Minakami, Junji
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-004
 ICS B41N001-14; G03F007-00; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002072463	A2	20020312	JP 2000-255881	20000825
OS	MARPAT 136:224220				
GI					



I

AB The resin compn. contains an alkali-sol. resin and a light-to-heat converting dye which has a structure of polymethine chain-bonded heterocycles and having acid anion or its ester or salt as substituent(s). The dye may be a **cyanine dye I** (Y1-2 = dialkylmethylene, S; R3-4 = alkyl, alkenyl, alkynyl, Ph; L2 = tri-, penta-, hepta-, nona- or undeca-methine group having acid anion, its ester, or salt; A = acid anion, its ester or salt; Xa = counter anion). Pos.-working lithog. plate using the resin compn. is also claimed. The compn. shows high sensitivity to near IR ray, and gives high contrast

images and shows good development latitude.

ST pos photosensitive resin lithog plate; light heat converter
cyanine dye acid anion

IT **Cyanine dyes**
(pos.-working photosensitive resin contg. **cyanine dye**
light-to-heat converting agent for lithog. plate)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working photosensitive resin contg. **cyanine dye**
light-to-heat converting agent for lithog. plate)

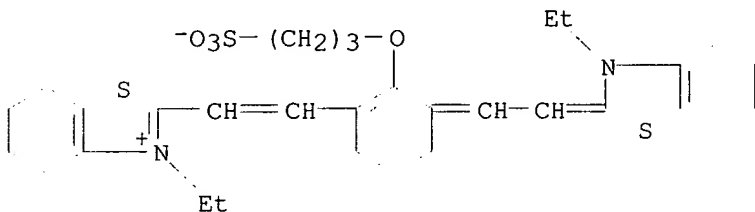
IT Lithographic plates
(pos.-working; pos.-working photosensitive resin contg. **cyanine dye** light-to-heat converting agent for lithog. plate)

IT 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer
328064-16-0 328064-20-6
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working photosensitive resin contg. **cyanine dye**
light-to-heat converting agent for lithog. plate)

IT **328064-16-0 328064-20-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working photosensitive resin contg. **cyanine dye**
light-to-heat converting agent for lithog. plate)

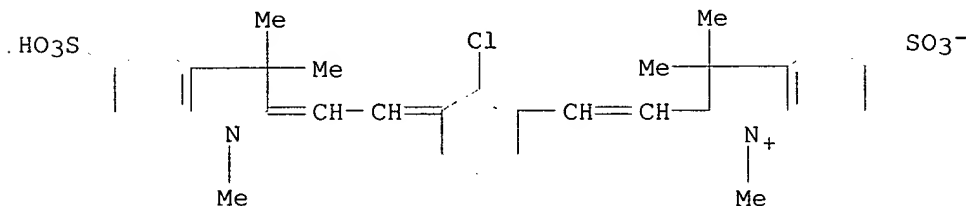
RN 328064-16-0 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[2-[3-[(3-ethyl-2(3H)-benzothiazolylydene)ethylidene]-2-(3-sulfopropoxy)-1-cyclohexen-1-yl]ethenyl]-, inner salt (9CI) (CA INDEX NAME)



RN 328064-20-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-5-sulfo-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-5-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)

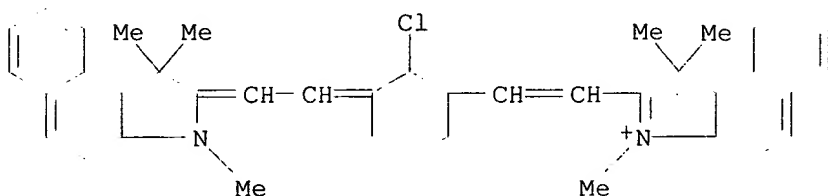


● Na

AN 2001:847641 HCAPLUS
 DN 136:12857
 TI Alkali development and its developers for direct platemaking of lithographic plate masters by IR lasers
 IN Takamiya, Shuichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-32
 ICS G03F007-00; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 46
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001324819	A2	20011122	JP 2000-142803	20000516
AB	The developers, for development of imagewise exposed lithog. master plates having IR-absorber-contg. layers, contain betaine-type amphiphilic surfactants and nonreducing sugar. The thus-developed masters show defect-free pattern layers.				
ST	nonreducing sugar alkali developer PS plate; amphiphilic surfactant contg developer lithog master; IR laser platemaking lithog master development				
IT	Cyanine dyes (IR absorbing; alkali development and its developers for fabrication of lithog. plate masters)				
IT	Dyes (IR-absorbing, cyanine dyes ; alkali development and its developers for fabrication of lithog. plate masters)				
IT	Lithographic plates (alkali development and its developers for fabrication of lithog. plate masters)				
IT	Betaines RL: NUU (Other use, unclassified); USES (Uses) (amphiphilic surfactants; alkali development and its developers for fabrication of lithog. plate masters)				
IT	Surfactants (amphiphilic, betaine-type; alkali development and its developers for fabrication of lithog. plate masters)				
IT	Carbohydrates, uses RL: NUU (Other use, unclassified); USES (Uses) (nonreducing; alkali development and its developers for fabrication of lithog. plate masters)				
IT	Phenolic resins, processes RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (novolak, cresol-based, pattern-forming layers; alkali development and its developers for fabrication of lithog. plate masters)				
IT	683-10-3	6179-44-8	6288-39-7	20284-67-7	26837-33-2
	68731-48-6	75033-22-6	131836-83-4	146186-08-5	203059-63-6
	374777-93-2	374777-95-4	374777-96-5	374777-97-6	
	RL: NUU (Other use, unclassified); USES (Uses) (developers; alkali development and its developers for fabrication of lithog. plate masters)				
IT	134127-48-3 RL: DEV (Device component use); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (pattern-forming layers; alkali development and its developers for				

fabrication of lithog. plate masters)
 IT 134127-48-3
 RL: DEV (Device component use); MOA (Modifier or additive use); PEP
 (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (pattern-forming layers; alkali development and its developers for
 fabrication of lithog. plate masters)
 RN 134127-48-3 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-
 benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-
 trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX
 NAME)
 CM 1
 CRN 134127-47-2
 CMF C40 H40 Cl N2



CM 2
 CRN 16722-51-3
 CMF C7 H7 O3 S

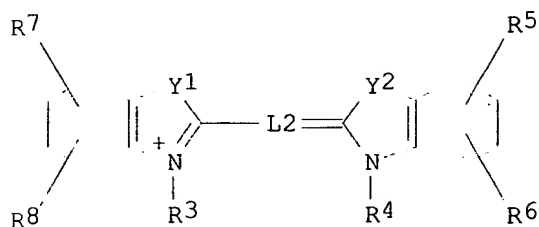


L18 ANSWER 6 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2001:796426 HCAPLUS
 DN 135:350577
 TI Positive-working lithographic printing plate master showing improved
 stability for direct digital platemaking
 IN Kawauchi, Ikuo
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-00
 ICS B41N001-14; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 FAN.CNT 1

applicant

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2001305722 A2 20011102 JP 2000-116656 20000418
 US 2001039895 A1 20011115 US 2001-835564 20010417
 PRAI JP 2000-116656 A 20000418
 OS MARPAT 135:350577
 GI

X⁻

I

- AB The invention relates to a lithog. printing plate master, wherein a coating soln., comprised of a **cyanine dye** represented by I (Y1, Y2 = dialkylmethylene, S; R3, R4 = alkyl, alkenyl, alkynyl, phenyl; L2 = trimethine, pentamethine, heptamethine; R5-8 = H, alkyl, alkenyl, alkoxy, cycloalkyl, aryl; X⁻ = anion), water-insol., alk.-sol. **polymer**, and b.p.-specified **solvent(s)**, is used to form a photosensitive layer capable of becoming alk.-sol. upon IR laser irradiation. The lithog. printing plate master shows excellent developability by IR laser irradiation.
- ST lithog printing plate master **cyanine dye** IR direct platemaking
- IT Phenolic resins, processes
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (novolak, cresol-based; water-insol., alk.-sol. **polymer** in IR-sensitive layer of pos.-working lithog. printing plate master showing improved stability for direct digital platemaking)
- IT Lithographic plates
 (pos.-working lithog. printing plate master showing improved stability for direct digital platemaking)
- IT 67-56-1, Methanol, processes 78-93-3, Methyl ethyl ketone, processes 107-98-2, 1-Methoxy-2-propanol
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (b.p.-specified **solvent** in IR-sensitive layer of pos.-working lithog. printing plate master showing improved stability for direct digital platemaking)
- IT 23178-67-8 134127-48-3 173474-43-6
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (**cyanine dye** in IR-sensitive layer of pos.-working lithog. printing plate master showing improved stability for direct digital platemaking)
- IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(water-insol., alk.-sol. **polymer** in IR-sensitive layer of pos.-working lithog. printing plate master showing improved stability for direct digital platemaking)

IT 23178-67-8 134127-48-3 173474-43-6

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(**cyanine dye** in IR-sensitive layer of pos.-working lithog. printing **plate** master showing improved stability for direct digital **platemaking**)

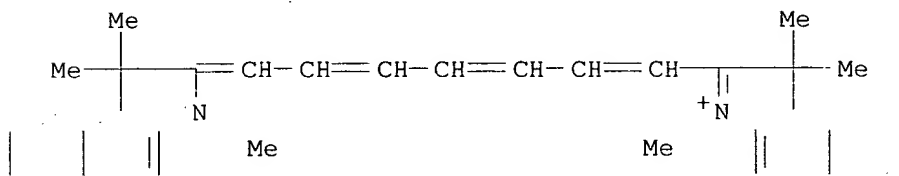
RN 23178-67-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 47809-39-2

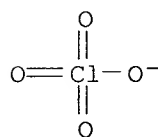
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CM 2

CRN 14797-73-0

CMF Cl O4



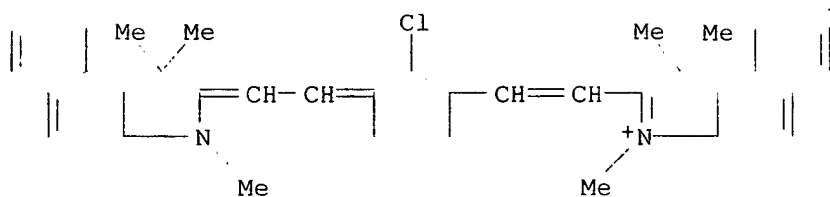
RN 134127-48-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

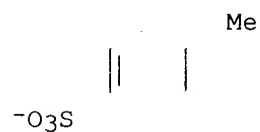
CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



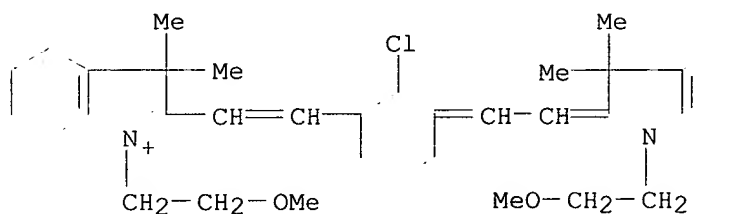
RN 173474-43-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2

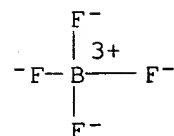


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



L18 ANSWER 7 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:760373 HCAPLUS

DN 135:325271

TI Photopolymerizable compositions containing urethane compounds, presensitized lithographic printing plates therefrom, and platemaking method

IN Okamoto, Hideaki; Urano, Toshiyoshi; Noguchi, Motoharu

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-027

ICS C08F002-50; C08F299-06; G03F007-00; G03F007-004; G03F007-029; G03F007-031; G03F007-032

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001290267	A2	20011019	JP 2001-16536	20010125
PRAI	JP 2000-23993	A	20000201		

AB The comps. contain ethylenic monomers (including urethane compds. having .gtoreq.4 urethane bonds and .gtoreq.4 addn.-polymerizable double bonds) and photopolymn. initiator systems. Thus, a compn. contg. a reaction product of NK Ester A 9530 (dipentaerythritol pentaacrylate-based compd.) and ME 20-100 (polyisocyanate) 44, 2-(methacryloyloxy)ethyl phosphate 11, a titanocene radical generator 5, dipyrrometheneboron difluoride-based sensitizers 1.0, and Me methacrylate-methacrylic acid-Cyclomer A 200 (alicyclic epoxy acrylate) copolymer 45 parts was applied on an anodized Al plate, exposed to a laser beam, and developed with an alkali soln. to give a test piece with good resoln. and durability.

ST photopolymn ethylenic polyurethane presensitized lithog plate; titanocene initiator **cyanine dye** sensitizer platemaking; pentaerythritol acrylate polymer laser exposure resoln

IT Polyurethanes, preparation
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(acrylates; photopolymerizable comps. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)

IT Catalysts
(photochem.; photopolymerizable comps. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)

IT Photoimaging materials
(photopolymerizable comps. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)

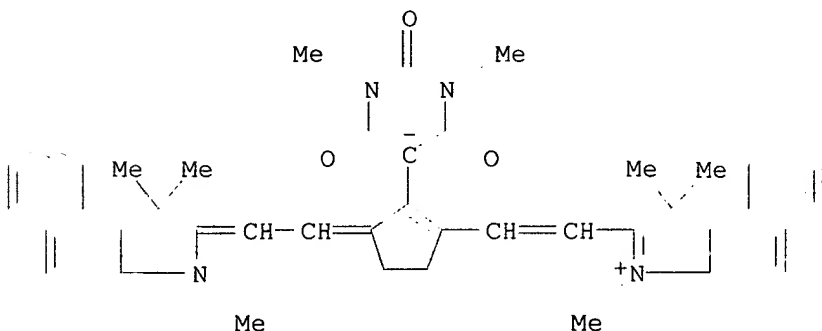
IT Polymerization catalysts
(photopolymn.; photopolymerizable comps. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)

IT Lithographic plates
(presensitized; photopolymerizable comps. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)

IT **Cyanine dyes**
(sensitizer; photopolymerizable comps. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)

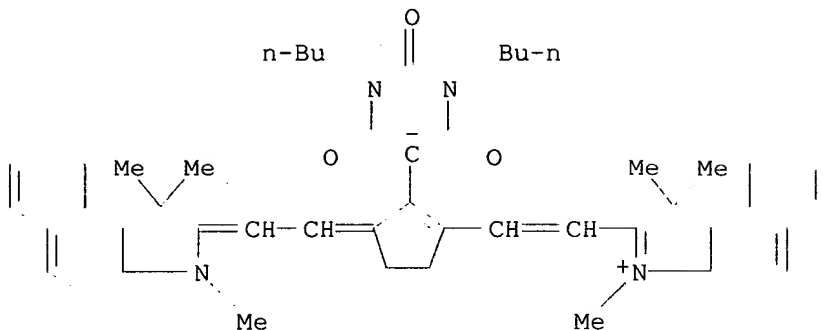
IT 132011-04-2P, Cyclomer A 200-methacrylic acid-methyl methacrylate copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

- (binder; photopolymerizable compns. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)
- IT 620-40-6, Tribenzylamine
RL: CAT (Catalyst use); USES (Uses)
(photopolymerizable compns. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)
- IT 24599-21-1, Mono[2-(methacryloyloxy)ethyl] phosphate 32435-46-4, Bis[2-(methacryloyloxy)ethyl] phosphate 56361-55-8, Bisphenol A diethylene glycol diacrylate 302778-63-8 367966-32-3
RL: DEV (Device component use); USES (Uses)
(photopolymerizable compns. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)
- IT 617-73-2DP, 2-Hydroxyoctanoic acid, reaction products with polyurethane-367966-29-8DP, reaction products with hydroxyoctanoic acid 367966-29-8P, ME 20-100-NK Ester A 9530 copolymer 367966-30-1P, ME 20-100-NK Ester 701A copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(photopolymerizable compns. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)
- IT 3584-23-4 367965-47-7 367965-48-8
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; photopolymerizable compns. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)
- IT 55799-81-0 141052-73-5 259133-57-8 367965-49-9
RL: CAT (Catalyst use); USES (Uses)
(sensitizer; photopolymerizable compns. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)
- IT 259133-57-8 367965-49-9
RL: CAT (Catalyst use); USES (Uses)
(sensitizer; photopolymerizable compns. contg. urethane compds. for photosensitive lithog. plates with good resoln. and durability)
- RN 259133-57-8 HCAPLUS
- CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(hexahydro-1,3-dimethyl-2,4,6-trioxo-5-pyrimidinyl)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, inner salt (9CI) (CA INDEX NAME)



- RN 367965-49-9 HCAPLUS
- CN 1H-Benz[e]indolium, 2-[2-[2-(1,3-dibutylhexahydro-2,4,6-trioxo-5-pyrimidinyl)-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, inner

salt (9CI) (CA INDEX NAME)



L18 ANSWER 8 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2001:654958 HCAPLUS
 DN 135:218761
 TI Negative-working lithographic printing plates for infrared laser recording
 IN Shimada, Kazuto; Kunita, Kazuto
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-027
 ICS B41N001-14; G03F007-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001242621	A2	20010907	JP 2000-55772	20000301
	US 2001036598	A1	20011101	US 2001-793760	20010227
PRAI	JP 2000-55772	A	20000301		
	JP 2000-65162	A	20000309		

AB The printing plates comprise a hydrophilized support having an IR laser-recordable photosensitive layer formed by application of a soln. or a dispersion contg. (1) an IR absorber, (2) a **polymn.** initiator, and (3) compds. having polymerizable unsatd. groups, followed by heating for control of the **solvent** content in the layer, to .ltoreq.5 wt.%. Clear images are formed at high sensitivity by controlling the contents of residual **solvent**.

ST heat mode lithog printing plate; IR writable lithog printing plate; sensitivity high lithog printing plate; drying photosensitive layer **solvent** control lithog plate; residual **solvent** controlled lithog printing plate

IT Optical materials
 (IR absorbers; heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)

IT IR materials
 (absorbers; heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)

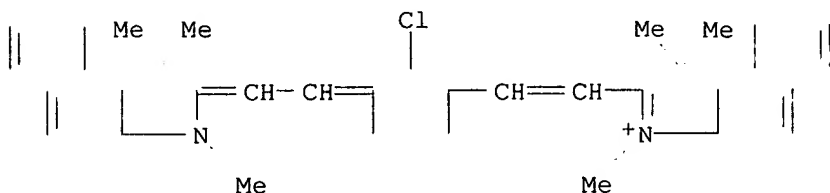
IT Lithographic plates
 Polymerization catalysts
 Solvents

- (heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)
- IT Onium compounds
RL: MOA (Modifier or additive use); USES (Uses)
(iodonium, diaryl, **polymn.** initiator; heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)
- IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyester-; heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)
- IT 134127-48-3
RL: MOA (Modifier or additive use); USES (Uses)
(IR absorber; heat-mode recording neg.-working lithog. printing **plates** with controlled **solvent** concn. for high sensitivity)
- IT 4986-89-4, Pentaerythritol tetraacrylate 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 139385-71-0, Glycerin dimethacrylate-hexamethylene diisocyanate copolymer 293329-29-0, 2,2-Bis(hydroxymethyl)propionic acid-[4,4'-diphenylmethane diisocyanate-hexamethylene diisocyanate-polypropylene glycol copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)
- IT 220122-68-9 220476-39-1
RL: MOA (Modifier or additive use); USES (Uses)
(**polymn.** initiator; heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)
- IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 68-12-2, Dimethylformamide, uses 75-05-8, Acetonitrile, uses 78-93-3, Methyl ethyl ketone, uses 107-98-2, 1-Methoxy-2-propanol
RL: TEM (Technical or engineered material use); USES (Uses)
(**solvent**; heat-mode recording neg.-working lithog. printing plates with controlled **solvent** concn. for high sensitivity)
- IT 134127-48-3
RL: MOA (Modifier or additive use); USES (Uses)
(IR absorber; heat-mode recording neg.-working lithog. printing **plates** with controlled **solvent** concn. for high sensitivity)
- RN 134127-48-3 HCAPLUS
- CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S

Me

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-O3S

L18 ANSWER 9 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:472601 HCAPLUS

DN 135:84326

TI Thermal digital lithographic printing plate

IN Patel, Jayanti; Saraiya; Shashikant; Hauck, Celin-Savariar; Huang, Jianbing; Mikell, Frederic; Shimazu, Kenichi; Merchant, Nishith

PA Kodak Polychrome Graphics Company Ltd., USA

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 4

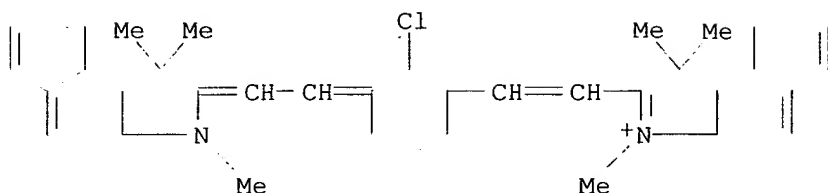
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001045958	A2	20010628	WO 2000-US42759	20001212
	WO 2001045958	A3	20020131		
	W: BR, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	US 6352811	B1	20020305	US 1999-469490	19991222
PRAI	US 1999-469490	A	19991222		
	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
AB	The invention relates to thermal lithog. plates that are imaged with an IR laser and processed with an aq. alk. developer. The thermal imaging element is made up of a substrate and a composite layer structure composed of 2 layer coatings. Preferably, the 1st layer of the composite is composed of an aq. developable polymer mixt. contg. a soly. inhibiting material and a photothermal conversion material which is contiguous to the hydrophilic substrate. The 2nd layer of the composite is insol. in the aq. soln., is ink receptive, and is composed of .gtoreq.1 nonaq. sol. polymers which are sol. or dispersible in a solvent which does not dissolve the 1st layer. The 2nd layer may also contain a photothermal conversion material. Alternatively, the composite layer may be free of photothermal conversion material when thermal imaging is carried out using a thermal printing head.				
ST	thermal digital lithog printing plate acrylic binder resin urethane				
IT	IR lasers				
	Lithographic plates				
	Thermal printing materials				
	(IR-sensitive thermal lithog. plate contg. acrylic binder resin and				

- carbonyl-contg. soly. inhibitor)
- IT Polyurethanes, uses
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(IR-sensitive thermal lithog. plate contg. acrylic binder resin and carbonyl-contg. soly. inhibitor)
- IT Fluoropolymers, uses
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(MP 1100; coating for thermal digital lithog. printing plate contg.)
- IT Phenolic resins, uses
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(novolak; IR-sensitive thermal lithog. plate contg. acrylic binder resin and carbonyl-contg. soly. inhibitor)
- IT Acrylic polymers, uses
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(polyester-; IR-sensitive thermal lithog. plate contg. acrylic binder resin and carbonyl-contg. soly. inhibitor)
- IT Recording materials
(thermal; IR-sensitive thermal lithog. plate contg. acrylic binder resin and carbonyl-contg. soly. inhibitor)
- IT 9002-84-0, MP 1100
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(MP 1100; coating for thermal digital lithog. printing plate contg.)
- IT 2390-60-5, Victoria Blue BO 5496-71-9, ADS 1060A 9004-70-0, E 950 9011-14-7, PMMA 59269-51-1, Poly(vinyl phenol) 134127-48-3, ADS 830A 199444-11-6, KF 654B-PINA
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(coating for thermal digital lithog. printing plate contg.)
- IT 346593-65-5, PC-T 153 346594-06-7, JK 5
RL: DEV (Device component use); NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(developer for thermal digital lithog. printing plate contg.)
- IT 634-21-9 212964-63-1
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(soly.-inhibitor dye; coating for thermal digital lithog. printing plate contg.)
- IT 346587-45-9P 346587-46-0P 346587-47-1P 346587-48-2P 346587-50-6P 346587-52-8P
RL: DEV (Device component use); PNU (Preparation, unclassified); POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis of acrylic binder resin free of carboxyl group for thermal digital lithog. printing plate)
- IT 134127-48-3, ADS 830A 199444-11-6, KF 654B-PINA
RL: DEV (Device component use); MOA (Modifier or additive use); NUU (Other use, unclassified); POF (Polymer in formulation); USES (Uses)
(coating for thermal digital lithog. printing plate contg.)
- RN 134127-48-3 HCAPLUS
- CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

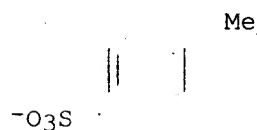
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CM 2

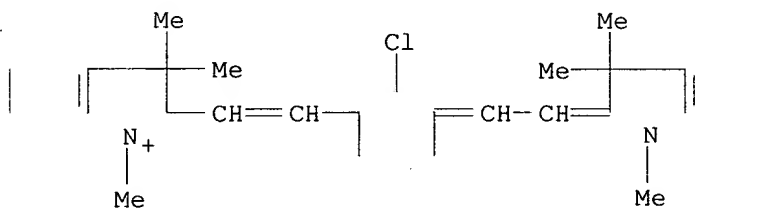
CRN 16722-51-3

CMF C7 H7 O3 S



RN 199444-11-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, chloride (9CI) (CA INDEX NAME)



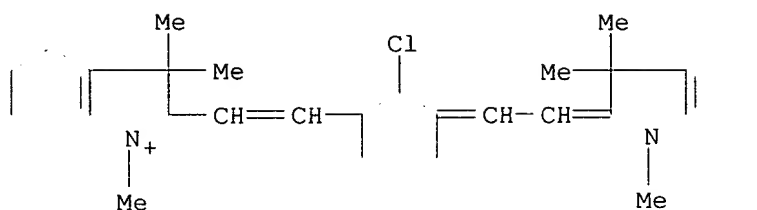
● Cl⁻

IT 212964-63-1

RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(soly.-inhibitor dye; coating for thermal digital lithog. printing plate contg.)

RN 212964-63-1 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

L18 ANSWER 10 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:377050 HCAPLUS

DN 135:12099

TI Positive-working photosensitive composition and positive-working photosensitive lithographic printing plate suitable for near-IR laser direct platemaking

IN Urano, Toshiyoshi; Minakami, Junji

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-004; B41N001-14; C08K005-3417; C08K005-46; C08L061-06;

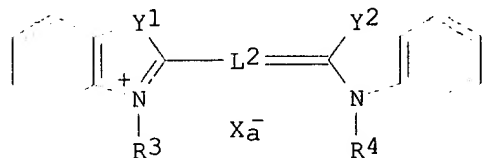
C08L101-00; C09B023-00; G03F007-00

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001142202	A2	20010525	JP 2000-250762	20000822
PRAI	JP 1999-235217	A	19990823		
OS	MARPAT 135:12099				
GI					



I

AB In a pos.-working photosensitive compn. comprising a photothermal conversion substance and an alk.-sol. novolak resin, the photothermal conversion substance is a **cyanine dye** represented by I (Y1, Y2 = dialkylmethylene, S; R3, R4 = alkyl, alkenyl, alkynyl, phenyl; L2 = polymethine linkage contg. substituent including ether linkage or thioether linkage; Xa- = counter anion). The photosensitive compn. shows excellent near-IR-sensitivity and high contrast.

ST pos working photosensitive compn **cyanine dye** lithog
printing plate; direct platemaking near IR laser photoresist

IT **Cyanine dyes**
(in pos.-working photosensitive compn. and pos.-working photosensitive
lithog. printing plate suitable for near-IR laser direct platemaking)

IT Positive photoresists
(pos.-working photosensitive compn. and pos.-working photosensitive
lithog. printing plate suitable for near-IR laser direct platemaking)

IT Lithographic plates
(presensitized, pos.-working; pos.-working photosensitive compn. and
pos.-working photosensitive lithog. printing plate suitable for near-IR
laser direct platemaking)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(alk.-sol. novolak resin in pos.-working photosensitive compn. and
pos.-working photosensitive lithog. printing plate suitable for near-IR
laser direct platemaking)

IT 328063-81-6 328063-88-3 328063-95-2 328064-01-3
RL: TEM (Technical or engineered material use); USES (Uses)
(**cyanine dye** in pos.-working photosensitive compn.
and pos.-working photosensitive lithog. printing
plate suitable for near-IR laser direct platemaking)

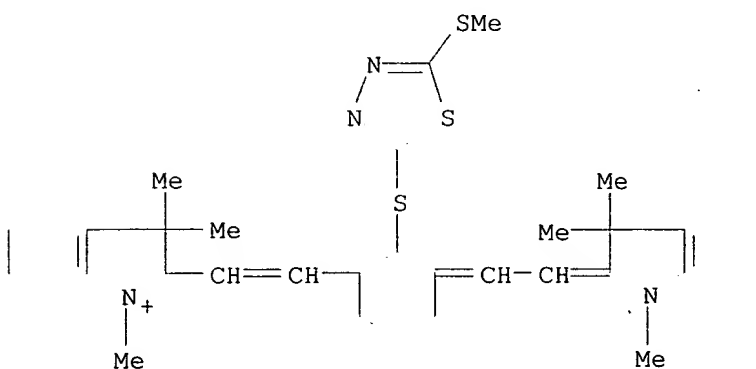
IT 328063-81-6 328063-88-3
RL: TEM (Technical or engineered material use); USES (Uses)
(**cyanine dye** in pos.-working photosensitive compn.
and pos.-working photosensitive lithog. printing
plate suitable for near-IR laser direct platemaking)

RN 328063-81-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-
ylidene)ethylidene]-2-[[5-(methylthio)-1,3,4-thiadiazol-2-yl]thio]-1-
cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX
NAME)

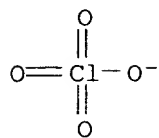
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CRN 328063-80-5
CMF C35 H39 N4 S3



CM 2

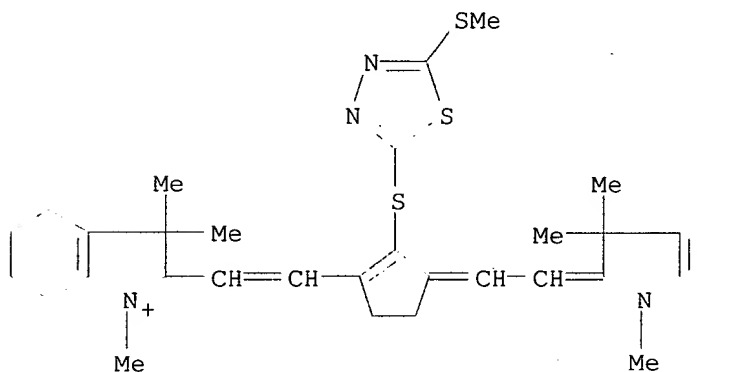
CRN 14797-73-0
CMF C1 O4



RN 328063-88-3 HCAPLUS
 CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-[[5-(methylthio)-1,3,4-thiadiazol-2-yl]thio]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

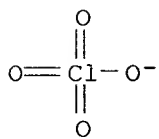
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CRN 328063-87-2
 CMF C34 H37 N4 S3



CM 2

CRN 14797-73-0
 CMF Cl O4

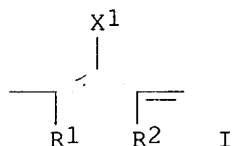


L18 ANSWER 11 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2001:319602 HCAPLUS
 DN 134:334316
 TI Negative-type image recording material and precursor for negative-type lithographic printing plate
 IN Aoshima, Keitaro
 PA Fuji Photo Film Co., Ltd., Japan
 SO Eur. Pat. Appl., 39 pp.
 CODEN: EPXXDW
 DT Patent

LA English
 IC ICM G03F007-029
 ICS G03F007-038; B41M005-36; B41M005-40
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1096315	A1	20010502	EP 2000-123361	20001030
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001125260	A2	20010511	JP 1999-308286	19991029
	JP 2001133969	A2	20010518	JP 1999-310623	19991101
PRAI	JP 1999-308286	A	19991029		
	JP 1999-310623	A	19991101		
OS	MARPAT 134:334316				
GI					



AB The invention relates to an image-recording material that can be used as a precursor for a lithog. printing plate, a color proof, a photoresist, and a color filter. A neg.-type recording material recordable by the irradiation of an IR ray is provided. The recording material includes (a) an IR absorbent, (b) an onium salt, (c) a radical polymg. compd., and (d) a binder polymer. The IR absorbent (a) includes .gtoreq.1 **cyanine dye** having a partial structure (I): where X1 = a halogen atom or X2-L1 (wherein X2 = an O atom or a S atom and L1 = a hydrocarbon group having from 1 to 12 C atoms; and R1 and R2 each independently = a hydrocarbon group having from 1 to 12 C atoms, and R1 and R2 may bind together to form a ring structure). Also provided is a neg.-type lithog. printing plate precursor including a support having formed thereon a photosensitive layer contg. (a) an IR absorbent, (b) an onium salt, (c) a radical polymg. compd., and (d) a binder polymer. Absorbance of the photosensitive layer at a max. absorption wavelength in a range of wavelengths of from 760 nm to 1200 nm is in a range of from 0.5 to 1.2 as measured by a reflection measurement method. Both the recording material and the precursor enable direct recording from digital data by using an IR-beam-emitting laser, and have excellent print durability which enables a large no. of good prints to be obtained without carrying out heat processing after image formation.

ST recording precursor lithog printing plate IR absorber onium salt

IT **Cyanine dyes**

Lithographic plates

Recording materials

(neg.-type image recording material and precursor for lithog. printing plate)

IT Onium compounds

Polymers, uses

RL: NUU (Other use, unclassified); USES (Uses)

(neg.-type image recording material and precursor for lithog. printing plate)

IT Polymerization

(radical; neg.-type image recording material and precursor for lithog. printing plate)

IT 11146-28-4, Aluminum 99.5, iron 0.3, silicon 0.1, titanium 0.02, copper 0.013
 RL: NUU (Other use, unclassified); USES (Uses)
 (alloy substrate for neg.-type image recording material and precursor for lithog. printing plate)

IT 29570-58-9, Dipentaerythritol hexaacrylate 61358-25-6, Bis(4-tert-butylphenyl)iodonium hexafluorophosphate **69415-30-1** 90216-38-9, Allyl methacrylate-methacrylic acid copolymer **134127-48-3** 151483-02-2 153698-46-5, Triphenylsulfonium pentafluorobenzenesulfonate 220476-38-0 226718-64-5 251463-24-8 335612-65-2, Victoria Pure Blue naphthalenesulfonate
 RL: NUU (Other use, unclassified); USES (Uses)
 (neg.-type image recording material and precursor for lithog. printing plate contg.)

IT 2041-14-7, 2-Aminoethylphosphonic acid 86468-54-4
 RL: NUU (Other use, unclassified); USES (Uses)
 (subbing soln. for neg.-type image recording material and precursor for lithog. printing plate contg.)

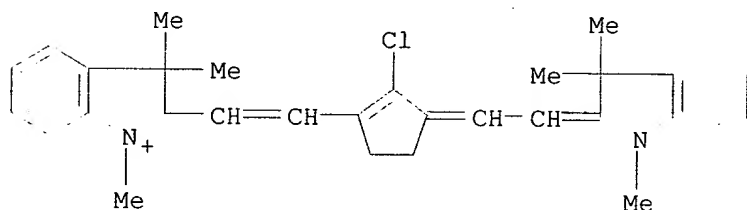
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Anon; PATENT ABSTRACTS OF JAPAN 1997, V1997(06)
 (2) Konica Corp; JP 09034110 A 1997 HCAPLUS
 (3) Mitsubishi Chem Corp; EP 0784233 A 1997 HCAPLUS
 (4) Showa Denko Kk; EP 0438123 A 1991 HCAPLUS

IT **69415-30-1 134127-48-3**
 RL: NUU (Other use, unclassified); USES (Uses)
 (neg.-type image recording material and precursor for lithog. printing plate contg.)

RN 69415-30-1 HCAPLUS
 CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

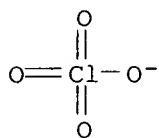
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CRN 69415-29-8
 CMF C31 H34 Cl N2



CM 2

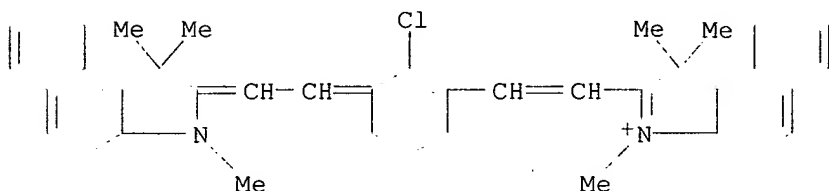
CRN 14797-73-0
 CMF Cl O4



RN 134127-48-3 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2
 CMF C40 H40 Cl N2



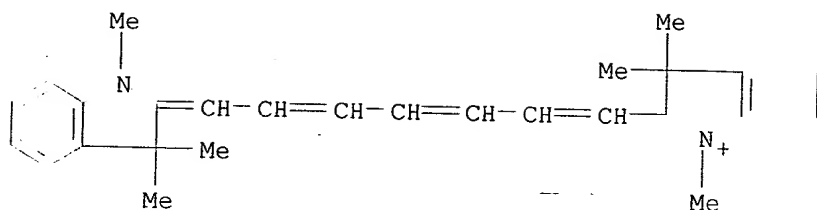
CM 2

CRN 16722-51-3
 CMF C7 H7 O3 S

Me

⁻O₃S

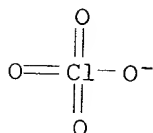
L18 ANSWER 12 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2001:228373 HCAPLUS
 DN 134:259239
 TI Positive-working near-IR laser sensitive presensitized lithographic plate
 IN Inoue, Tomoaki; Takada, Masakazu
 PA Mitsubishi Paper Mills, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-039
 ICS G03F007-004; G03F007-023; G03F007-029; G03F007-32; H01L021-027
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41
 FAN.CNT 1



CM 2

CRN 14797-73-0

CMF Cl O4



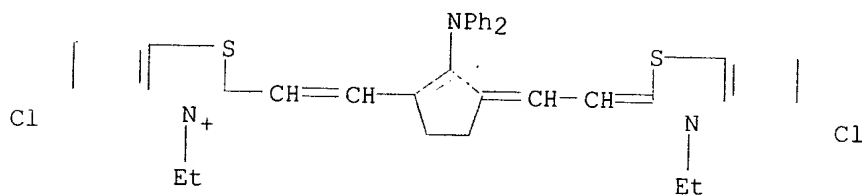
RN 53655-17-7 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[3-[(5-chloro-3-ethyl-2(3H)-benzothiazolylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-3-ethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 53655-16-6

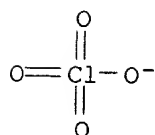
CMF C39 H34 Cl2 N3 S2



CM 2

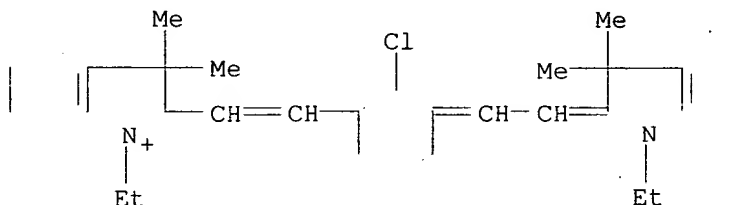
CRN 14797-73-0

CMF Cl O4



RN 124591-86-2 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, iodide (9CI) (CA INDEX NAME)

● I⁻

L18 ANSWER 13 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:833164 HCAPLUS

DN 134:23530

TI Direct imaging-type lithographic original plate

IN Aoki, Shingo; Goto, Kazuki; Nagase, Koichi

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41N001-14

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes).

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000326650	A2	20001128	JP 1999-143330	19990524
AB	The title lithog. original plate comprises a substrate coated with a heat-sensitive layer contg. a compd. capable of being decompd. by the action of laser irradiation which comprises a polymethine dye and a thermosetting compd. and overcoated with an ink-repellent layer. The lithog. original plate capable of direct platemaking using laser beams shows improved image reproducibility.				
ST	direct imaging lithog plate; laser decomposable methine dye lithog; ink repellent layer lithog plate				
IT	Cyanine dyes Lithographic plates (direct imaging lithog. plate comprising heat-sensitive layer contg. compd. decomposable by laser and thermosetting compd. and ink-repellent layer)				
IT	Phenolic resins, uses RL: DEV (Device component use); USES (Uses) (direct imaging lithog. plate comprising heat-sensitive layer contg. compd. decomposable by laser and thermosetting compd. and ink-repellent layer)				
IT	Phenolic resins, uses RL: DEV (Device component use); USES (Uses) (novolak; direct imaging lithog. plate comprising heat-sensitive layer				

contg. compd. decomposable by laser and thermosetting compd. and ink-repellent layer)

IT 9003-35-4, Sumilit Resin PR 50622 16902-59-3, Nacem Titanium
 22268-66-2 108961-97-3 168061-49-2 308360-87-4
 RL: DEV (Device component use); USES (Uses)
 (direct imaging lithog. plate comprising
 heat-sensitive layer contg. compd. decomposable by laser and
 thermosetting compd. and ink-repellent layer)

IT 22268-66-2
 RL: DEV (Device component use); USES (Uses)
 (direct imaging lithog. plate comprising
 heat-sensitive layer contg. compd. decomposable by laser and
 thermosetting compd. and ink-repellent layer)

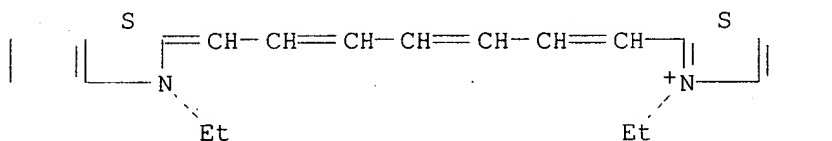
RN 22268-66-2 HCAPLUS

CN Benzothiazolium, 3-ethyl-2-[7-(3-ethyl-2(3H)-benzothiazolylydene)-1,3,5-heptatrienyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 23178-68-9

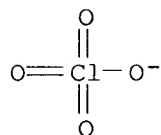
CMF C25 H25 N2 S2



CM 2

CRN 14797-73-0

CMF Cl O4



L18 ANSWER 14 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:686593 HCAPLUS

DN 133:259371

TI Materials for direct IR laser imaging for lithographic printing plates

IN Nakamura, Tatsuo; Kunita, Kazuhito

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00
 ICS B41N001-14; G02B005-20; G03F003-10; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000267265	A2	20000929	JP 1999-66733	19990312
AB	The materials contain at least (A) IR-absorbing dyes sol. to org. solvents and aq. alkali and (B) polymers insol. to water and sol. to aq. alkali for pos. image formation by IR irradiation. Also claimed materials contain (A), (B), (C) heat-acid generators, and (D) agents for crosslinking by acids for neg. image formation by IR irradiation. The materials provide high sensitivity and image storage stability.				
ST	IR absorbing dye photoresist image formation lithog printing plate				
IT	Optical materials				
	(IR absorbers; IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	Crosslinking agents				
	Lithographic plates				
	Negative photoresists				
	Positive photoresists				
	(IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	Phenolic resins, uses				
	RL: DEV (Device component use); USES (Uses)				
	(IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	IR materials				
	IR materials				
	(absorbers; IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	Phenolic resins, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(novolak, cresol-based; IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	Phenolic resins, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(novolak; IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	9003-35-4, Formaldehyde-phenol copolymer 27029-76-1 124996-93-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer				
	RL: DEV (Device component use); USES (Uses)				
	(IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	162846-57-3				
	RL: CAT (Catalyst use); DEV (Device component use); USES (Uses)				
	(crosslinking agent; IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	143557-68-0P 193208-79-6P 296252-23-8P				
	296252-24-9P 296252-26-1P 296252-28-3P 296252-30-7P				
	296252-32-9P 296252-34-1P 296252-35-2P				
	RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)				
	(dye; IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	260967-33-7				
	RL: DEV (Device component use); USES (Uses)				
	(heat-acid generator; IR laser-sensitive image forming material contg. dyes and alkali-sol. polymers for lithog. printing plates)				
IT	98-59-9, Tosyl chloride 121-44-8, reactions 123-30-8, p-Aminophenol				

6761-95-1 63857-00-1 134127-48-3 162411-30-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of; in prepn. of IR laser-sensitive dyes for lithog
: printing plates)

IT 143557-68-0P 193208-79-6P 296252-23-8P
296252-24-9P 296252-30-7P 296252-32-9P
296252-34-1P 296252-35-2P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
(Preparation); USES (Uses)
(dye; IR laser-sensitive image forming material contg. dyes and
alkali-sol. polymers for lithog. printing
plates)

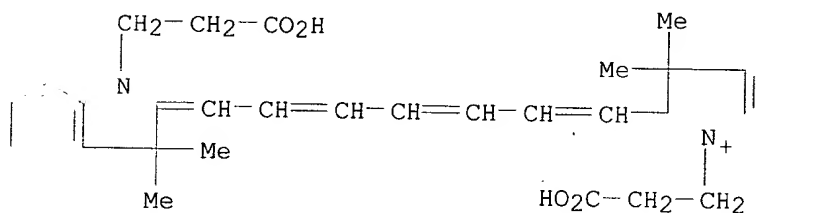
RN 143557-68-0 HCAPLUS

CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-1,3-dihydro-3,3-
dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-,
perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 143557-67-9

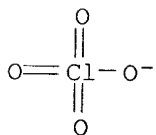
CMF C33 H37 N2 O4



CM 2

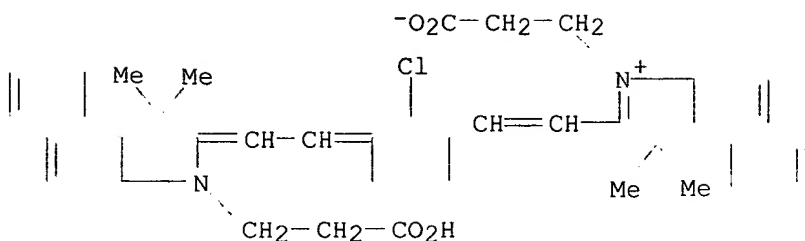
CRN 14797-73-0

CMF Cl O4



RN 193208-79-6 HCAPLUS

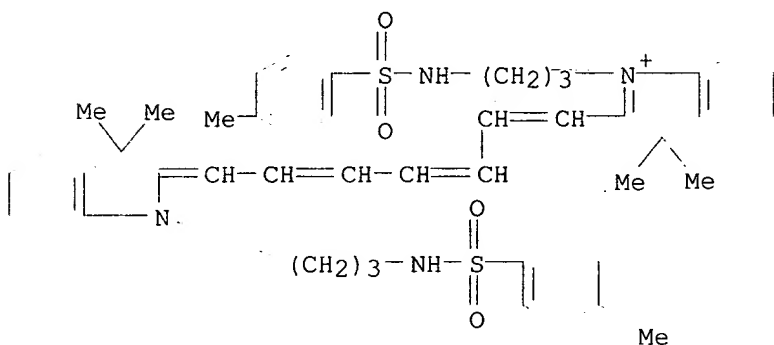
CN 1H-Benz[e]indolium, 3-(2-carboxyethyl)-2-[2-[3-[[3-(2-carboxyethyl)-
dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-2-chloro-
cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, inner salt (9CI) (CA I



RN 296252-23-8 HCAPLUS
 CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-[3-[[4-methylphenyl)sulfonyl]amino]propyl]-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-[3-[[4-methylphenyl)sulfonyl]amino]propyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

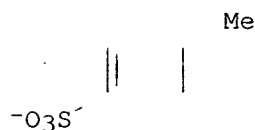
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CRN 296252-22-7
 CMF C47 H55 N4 O4 S2



CM 2

CRN 16722-51-3
 CMF C7 H7 O3 S

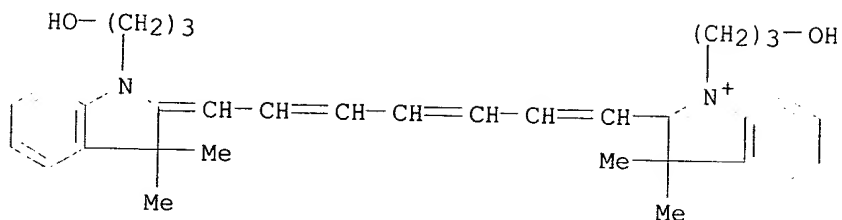


RN 296252-24-9 HCAPLUS
 CN 3H-Indolium, 2-[7-[1,3-dihydro-1-(3-hydroxypropyl)-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-(3-hydroxypropyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 218146-57-7

CMF C33 H41 N2 O2

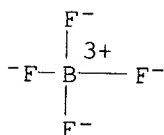


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



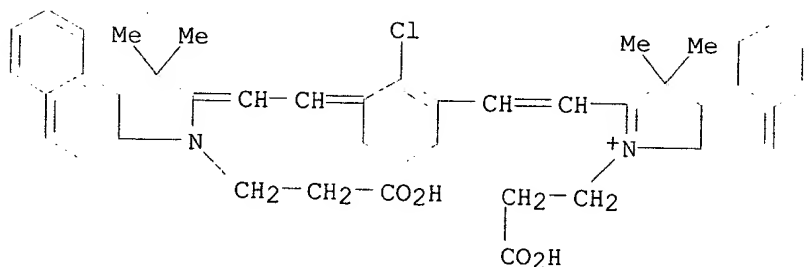
RN 296252-30-7 HCAPLUS

CN 1H-Benz[e]indolium, 3-(2-carboxyethyl)-2-[2-[3-[[3-(2-carboxyethyl)-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 296252-29-4

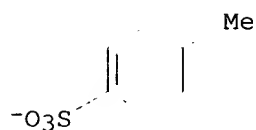
CMF C44 H44 Cl N2 O4



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



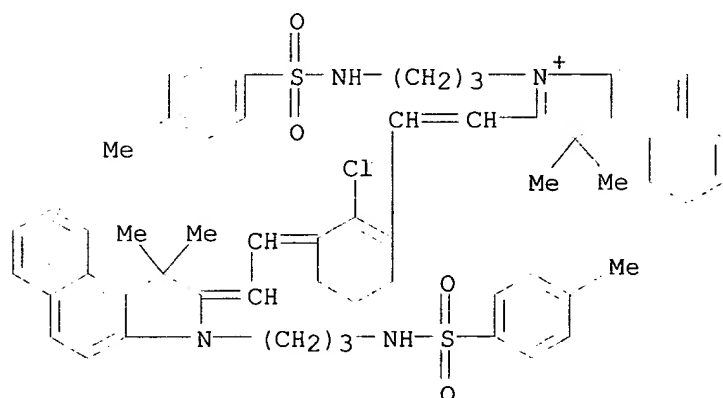
RN 296252-32-9 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1,1-dimethyl-3-[3-[[4-methylphenyl)sulfonyl]amino]propyl]-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-[3-[[4-methylphenyl)sulfonyl]amino]propyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 296252-31-8

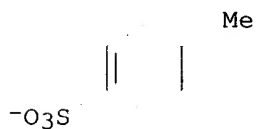
CMF C58 H62 Cl N4 O4 S2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



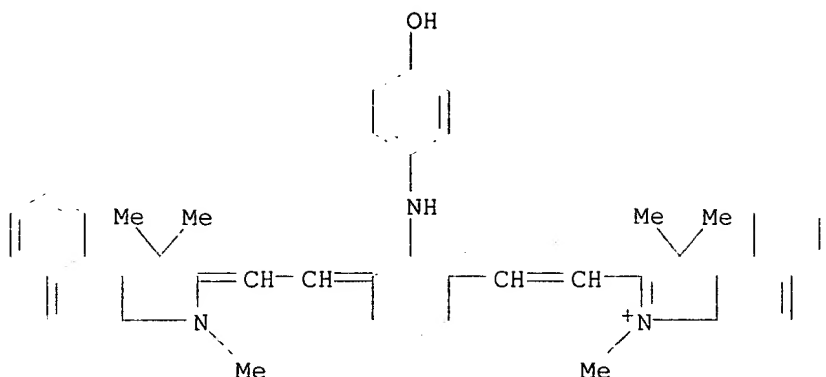
RN 296252-34-1 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-[(4-hydroxyphenyl)amino]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 296252-33-0

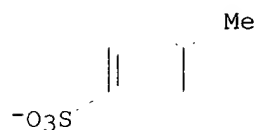
CMF C46 H46 N3 O



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



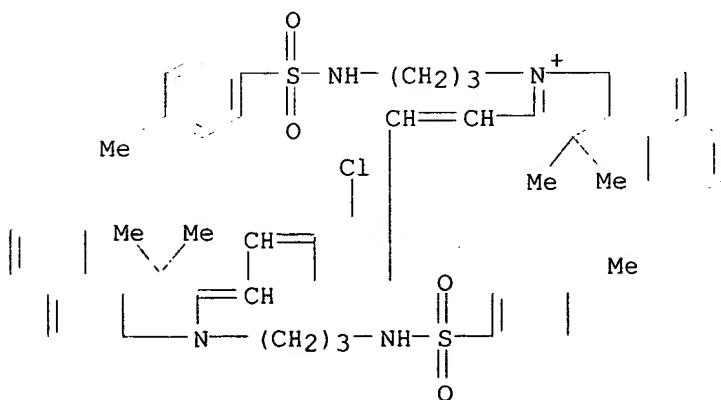
RN 296252-35-2 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1,1-dimethyl-3-[3-[[[4-methylphenyl)sulfonyl]amino]propyl]-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-[3-[[[4-methylphenyl)sulfonyl]amino]propyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 296252-31-8

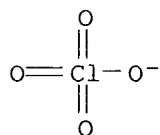
CMF C58 H62 Cl N4 O4 S2



CM 2

CRN 14797-73-0

CMF Cl O4



IT 134127-48-3 162411-30-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of; in prepn. of IR laser-sensitive dyes for lithog
. printing plates)

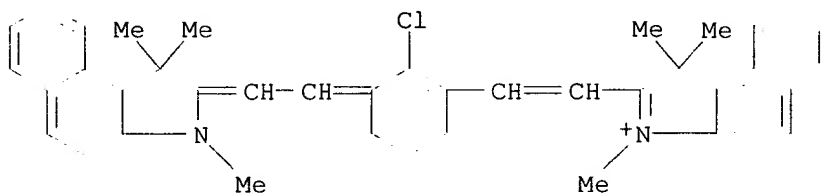
RN 134127-48-3 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

CMF C40 H40 Cl N2



CM 2

CRN 16722-51-3

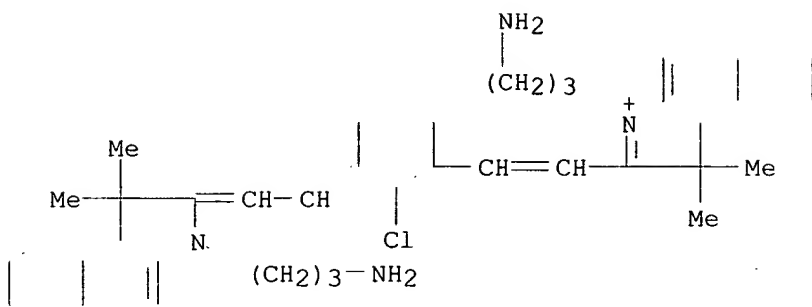
CMF C7 H7 O3 S

Me

⁻O₃S

RN 162411-30-5 HCAPLUS

CN 1H-Benz[e]indolium, 3-(3-aminopropyl)-2-[2-[3-[[3-(3-aminopropyl)-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, bromide, dihydrobromide (9CI) (CA INDEX NAME)



● Br⁻

● 2 HBr

- L18 ANSWER 15 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2000:579499 HCAPLUS
 DN 133:303396
 TI Visible light dye-sensitized photosensitive systems: A comprehensive study on photoimaging
 AU Gao, Fang; Yang, Yong-Yuan
 CS Institute of Photographic Chemistry, Chinese Academy of Sciences, Beijing, 100101, Peop. Rep. China
 SO Journal of Photopolymer Science and Technology (2000), 13(2), 265-268
 CODEN: JSTEEW; ISSN: 0914-9244
 PB Technical Association of Photopolymers, Japan
 DT Journal
 LA English
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 AB The visible light dyes were used to sensitize o-Cl-Hexaarylbiimidazole (o-Cl-HABI). The obtained results suggest that o-Cl-HABI displayed an efficient sensitized photocleavage when exposed to Xe lamp (use filter cut .lambda..ltoreq. 400nm). The visible light photosensitive systems were used in lithog. printing plate and very clear image was obtained. The resoln. of image reached 7 .mu.m at most. The influence of heating after irrads. and the content of dyes on the resoln. of image were studied.
 ST visible dye sensitized photosensitive system photoimaging **cyanine dye**
 IT Energy level excitation
 (light; visible light dye-sensitized photosensitive system for lithog. plates)
 IT Polymerization
 (photopolymn.; visible light dye-sensitized photosensitive system for lithog. plates)
 IT Heating
 Lithographic plates
 Photoimaging
 Photosensitizers (pharmaceutical)
 (visible light dye-sensitized photosensitive system for lithog. plates)

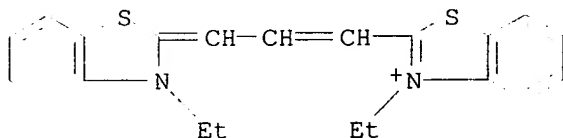
IT Dyes
(visible light; visible light dye-sensitized photosensitive system for lithog. plates)

IT 905-97-5, 3,3'-Diethylthiacarbocyanine iodide 27713-85-5
53115-04-1 162461-71-4 167905-60-4
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(visible light dye-sensitized photosensitive system for lithog . plates)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Davidson, R; J Photochem Photobiol A: Chem 1993, V73, P81 HCAPLUS
(2) Li, L; J of Photopolym Sci and Tech 1996, V9, P137 HCAPLUS
(3) Li, L; Photographic Science and Photochemistry 1998, V16, P1 HCAPLUS
(4) Monroc, B; Chem Rev 1993, V93, P435
(5) Zhu, Q; J Photochem Photobiol A: Chem 1991, V59, P255 HCAPLUS

IT 905-97-5, 3,3'-Diethylthiacarbocyanine iodide
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(visible light dye-sensitized photosensitive system for lithog . plates)

RN 905-97-5 HCAPLUS
CN Benzothiazolium, 3-ethyl-2-[3-(3-ethyl-2(3H)-benzothiazolyldiene)-1-propenyl]-, iodide (9CI) (CA INDEX NAME)



● I⁻

L18 ANSWER 16 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 2000:529188 HCAPLUS
DN 133:157683
TI Photosensitive lithographic form plate using an image-forming material
IN Kawamura, Koichi; Nakamura, Ippei; Oohashi, Hidekazu
PA Fuji Photo Film Co., Ltd., Japan
SO U.S., 54 pp.
CODEN: USXXAM
DT Patent
LA English
IC G03C001-72
NCL 430270100
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6096479	A	20000801	US 1999-259345	19990301
	US 6331375	B1	20011218	US 2000-525169	20000314
PRAI	JP 1998-47713	A	19980227		
	JP 1998-74630	A	19980323		
	JP 1998-371209	A	19981225		

JP 1999-8488 A 19990114
 US 1999-259345 A2 19990301
 OS MARPAT 133:157683
 AB A photosensitive lithog. form plate that can be directly prepd. by using digital signals from a computer or the like by using an IR laser or the like (i.e., a photosensitive lithog. form plate that can be directly prepd.), through using an image-forming material that can be directly inscribed with heat generated by irradiation of a laser light and is suitable for use in a lithog. form plate. The image-forming material used in the present invention comprises an IR light absorbing agent having a hydrophobic group which changes to hydrophilic due to heat. The image-forming material may further contain a macromol. binder insol. in H₂O and sol. in an aq. soln. of an alkali, or a macromol. binder that is decompd. by heat or with an acid and becomes sol. in H₂O or an alkali. In an exposed portion of the photosensitive layer, the IR light absorbing agent is decompd. due to heat by irradiation of IR light, and an acid is generated.

ST photosensitive lithog plate **cyanine dye**
 IT IR lasers
 Laser radiation
 Lithographic plates
 Photoimaging materials
 Printing (nonimpact)
 (photosensitive lithog. form plate using image-forming material and contg. IR light-absorbing agent)

IT Silica gel, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photosensitive lithog. form plate using image-forming material and contg. IR light-absorbing agent)

IT 107-95-9, .beta.-Alanine
 RL: MOA (Modifier or additive use); USES (Uses)
 (photosensitive lithog. form plate using aluminum substrate and undercoat contg.)

IT 96-48-0, .gamma.-Butyrolactone 2390-60-5, VICTORIA PURE BLUE BOH 22873-93-4, 1-Naphthalenesulfonate 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 85568-56-5, MEGAFAC F-177 215958-19-3
 RL: MOA (Modifier or additive use); USES (Uses)
 (photosensitive lithog. form plate using aluminum substrate coated with photosensitive liq. contg.)

IT 41532-84-7P 63857-00-1P 240128-49-8P 240128-50-1P 240821-85-6P
 RL: IMF (Industrial manufacture); PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (photosensitive lithog. form plate using image-forming material and contg. IR light-absorbing agent)

IT 240415-76-3P 240415-78-5P 240415-79-6P **240821-89-0P**
 240821-91-4P 240821-93-6P **240821-97-0P** 240821-99-2P
 240822-01-9P **240822-05-3P** 287118-74-5P 287185-68-6P
287186-14-5P 287186-16-7P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photosensitive lithog. form plate using image-forming material and contg. IR light-absorbing agent)

IT **240128-38-5** **240128-40-9** 240128-52-3
240415-74-1 240821-86-7 240821-87-8 240822-06-4
 287118-70-1 287118-72-3
 RL: MOA (Modifier or additive use); USES (Uses)
 (photosensitive lithog. form plate using image-forming material and contg. IR light-absorbing agent)

IT 78-10-4
 RL: RCT (Reactant); RACT (Reactant or reagent)

(photosensitive lithog. form plate using image-forming material and contg. IR light-absorbing agent)

IT 7429-90-5P, Aluminum, reactions

RL: IMF (Industrial manufacture); PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(photosensitive lithog. form plate using substrate of)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; EP 0566103 1993 HCAPLUS

(2) Anon; EP 0652483 1995 HCAPLUS

(3) Anon; EP 784233 1997 HCAPLUS

(4) Tomizawa; US 5976658 1999

IT 240821-89-0P 240821-97-0P 240822-05-3P

287186-14-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive lithog. form plate using image-forming material and contg. IR light-absorbing agent)

RN 240821-89-0 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[3-ethyl-1,3-dihydro[(2-methoxy-1-methylethoxy)sulfonyl]-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-1,1-dimethyl[(2-methoxy-1-methylethoxy)sulfonyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

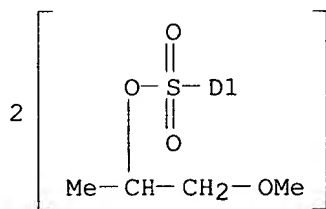
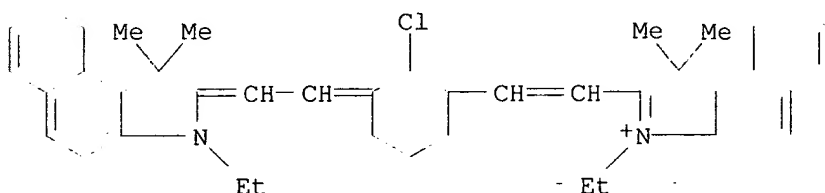
CM 1

CRN 240821-88-9

CMF C50 H60 Cl N2 O8 S2

CCI IDS

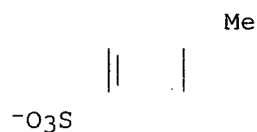
CDES *



CM 2

CRN 16722-51-3

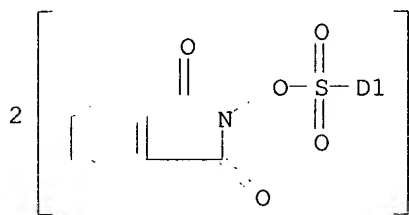
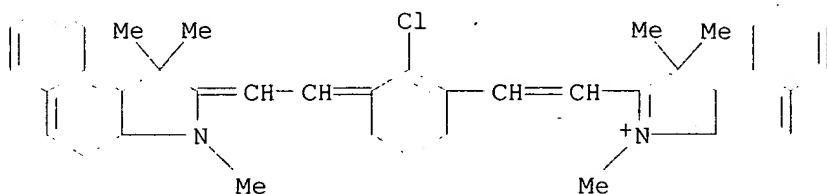
CMF C7 H7 O3 S



RN 240821-97-0 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)oxy]sulfonyl]-1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl][[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)oxy]sulfonyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 240821-96-9
 CMF C56 H46 Cl N4 O10 S2
 CCI IDS
 CDES *



CM 2

CRN 16722-51-3
 CMF C7 H7 O3 S



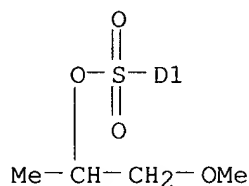
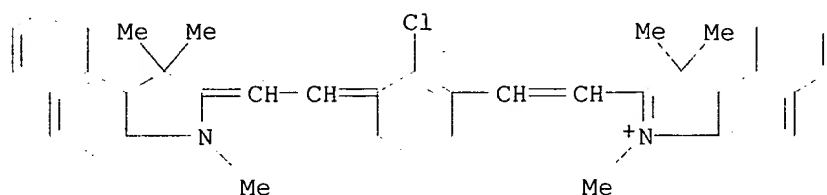
RN 240822-05-3 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[[(2,2-dimethylpropoxy)sulfonyl]-1,3-dimethyl-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-

cyclohexen-1-yl]ethenyl][(2-methoxy-1-methylethoxy)sulfonyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

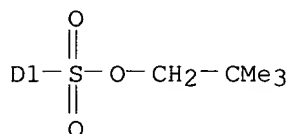
CM 1

CRN 240822-04-2
CMF C49 H58 Cl N2 O7 S2
CCI IDS
CDES *

PAGE 1-A



PAGE 2-A



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

Me



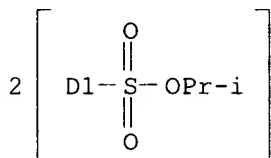
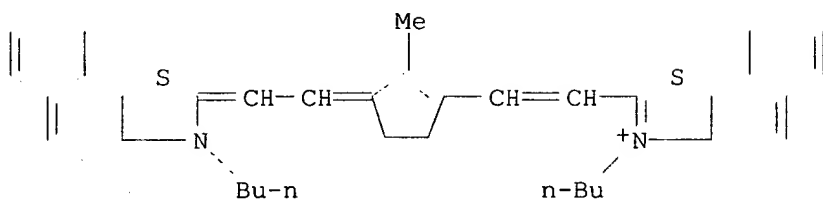
⁻O₃S

RN 287186-14-5 HCAPLUS
CN Naphtho[2,1-d]thiazolium, 3-butyl-2-[2-[3-[[3-butyl-6(7-,8 or 9)-[(1-methylethoxy)sulfonyl]naphtho[2,1-d]thiazol-2(3H)-ylidene]ethyldene]-2-methyl-1-cyclopenten-1-yl]ethenyl]-6(7-,8 or 9)-[(1-methylethoxy)sulfonyl]-, tetrafluoroborate(1-) (9CI) (CA INDEX

NAME)

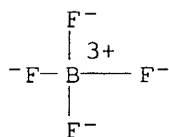
CM 1

CRN 287186-13-4
 CMF C46 H53 N2 O6 S4
 CCI IDS
 CDES *



CM 2

CRN 14874-70-5
 CMF B F4
 CCI CCS



IT 240128-38-5 240128-40-9 240415-74-1

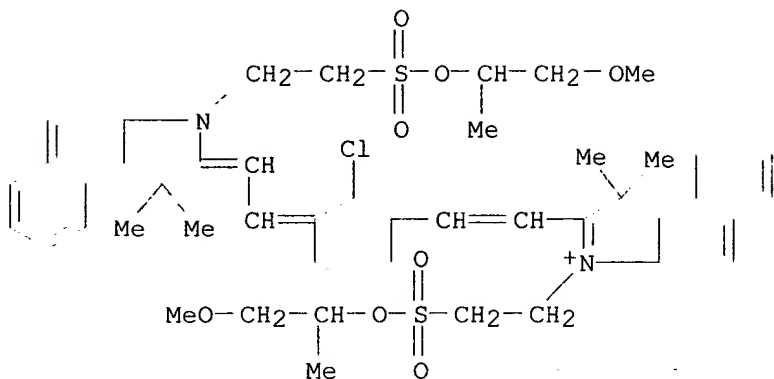
RL: MOA (Modifier or additive use); USES (Uses)
 (photosensitive lithog. form plate using
 image-forming material and contg. IR light-absorbing agent)

RN 240128-38-5 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-3-[2-[(2-methoxy-1-methylethoxy)sulfonyl]ethyl]-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-[2-[(2-methoxy-1-methylethoxy)sulfonyl]ethyl]-1,1-dimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 240128-37-4
 CMF C50 H60 Cl N2 O8 S2



CM 2

CRN 16722-51-3
CMF C7 H7 O3 S

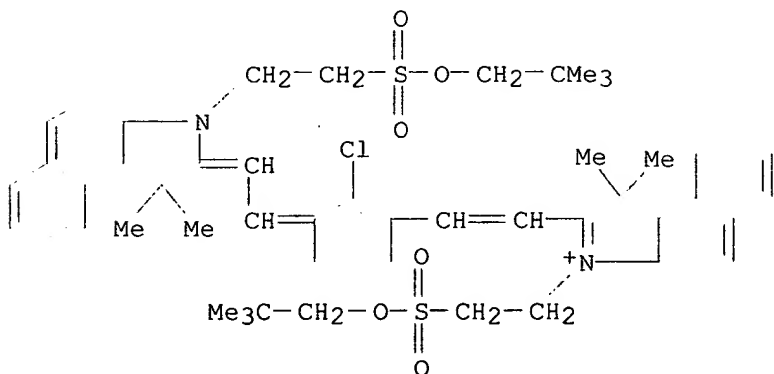
Me

-O₃S

RN 240128-40-9 HCAPLUS
CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[3-[2-[(2,2-dimethylpropoxy)sulfonyl]ethyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-[2-[(2,2-dimethylpropoxy)sulfonyl]ethyl]-1,1-dimethyl-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 240128-39-6
CMF C52 H64 Cl N2 O6 S2

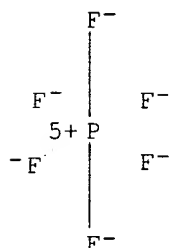


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



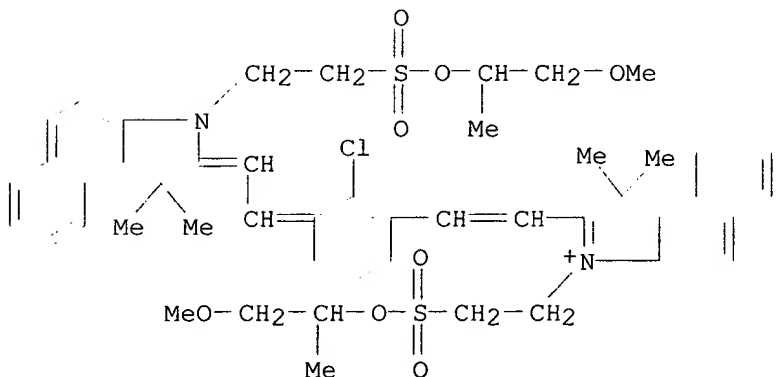
RN 240415-74-1 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-3-[2-[(2-methoxy-1-methylethoxy)sulfonyl]ethyl]-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-[2-[(2-methoxy-1-methylethoxy)sulfonyl]ethyl]-1,1-dimethyl-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 240128-37-4

CMF C50 H60 Cl1 N2 O8 S2

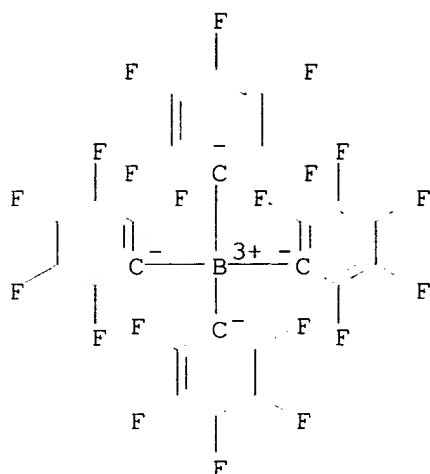


CM 2

CRN 47855-94-7

CMF C24 B F20

CCI CCS



L18 ANSWER 17 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:356243 HCAPLUS

DN 132:354795

TI Acid-decomposable **polymer** with specific molecular weight distribution, manufacture of the **polymer**, and photosensitive lithographic plate

IN Hattori, Ryoji; Hirai, Katsura; Shimizu, Kunio

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G065-34

ICS G03F007-00; G03F007-004; G03F007-039

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

FAN.CNT 1

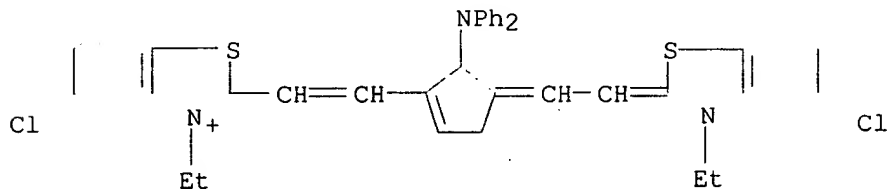
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000143796	A2	20000526	JP 1998-326879	19981117
AB	The acid-decomposable polymer has wt. av.-mol. wt. .ltoreq.3000 and the mol. wt. distribution is characterized by that the ratio of the peak area corresponding to mol. wt. 100-400 to total peak area is 0-40%, the ratio of the area corresponding to mol. wt. 400-800 is 0-60%, and the ratio of the area corresponding to mol. wt. 800-4000 is 20-80%. The polymer is manufd. by polymn. of a diol and a ketone or aldehyde in a nonpolar solvent , preferably hydrocarbon, in the presence of 0.0001-0.02 equiv. (based on diol) an acid catalyst followed by purifn. successively with 0.1-5 wt.% aq. NaOH and with satd. aq. NaCl. The photosensitive lithog. plate uses an image-forming material contg. the polymer , an IR-absorbing colorant, and an agent releasing acid under active beam. The pos.-working lithog. plate shows enhanced reaction rate under exposure with improved stability without redn. of development latitude.				
ST	acid decomposable polymer photosensitive lithog plate; aldehyde ketone diol copolymer acid decomposable; IR absorbing dye photosensitive lithog plate				
IT	Dyes				

- (IR-absorbing; acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate contg.)
- IT Polymerization catalysts
(for manuf. of acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate)
- IT Printing plates
(photosensitive; acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate)
- IT Hydrocarbons, uses
RL: NUU (Other use, unclassified); USES (Uses)
(**solvents**; for manuf. of acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate)
- IT 96758-30-4P, Dichlorodimethylsilane-tetraethylene glycol-p-xylylene glycol copolymer 193208-66-1P, Diethylene glycol-1,1-dimethoxycyclohexane copolymer
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate)
- IT 24504-22-1 218140-63-7
RL: MOA (Modifier or additive use); USES (Uses)
(acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate contg.)
- IT 1310-73-2, Sodium hydroxide, uses 7647-14-5, Sodium chloride, uses
RL: NUU (Other use, unclassified); USES (Uses)
(aq.; for manuf. of acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate)
- IT 104-15-4, p-Toluenesulfonic acid, uses
RL: CAT (Catalyst use); USES (Uses)
(**polymn.** catalyst; for manuf. of acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate)
- IT 108-88-3, Toluene, uses
RL: NUU (Other use, unclassified); USES (Uses)
(**solvent**; for manuf. of acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate)
- IT 218140-63-7
RL: MOA (Modifier or additive use); USES (Uses)
(acid-decomposable acetal or silyl ether **polymer** for photosensitive lithog. plate contg.)
- RN 218140-63-7 HCAPLUS
- CN Benzothiazolium, 5-chloro-2-[2-[4-[(5-chloro-3-ethyl-2(3H)-benzothiazolylydene)ethylidene]-5-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-3-ethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 218140-62-6

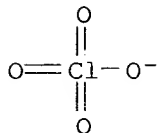
CMF C39 H34 Cl2 N3 S2



CM 2

CRN 14797-73-0

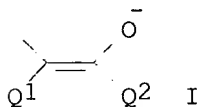
CMF C1 O4



L18 ANSWER 18 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 2000:313524 HCAPLUS
 DN 132:341204
 TI Photopolymerizable composition and lithographic printing plate and image formation method using it
 IN Urano, Toshiyoshi; Nagao, Takumi; Hino, Etsuko
 PA Mitsubishi Chemical Industries Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-027
 ICS C08F002-48; G03F007-00; G03F007-004; G03F007-028
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 27

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000131837	A2	20000512	JP 1999-227083	19990811
	US 6153356	A	20001128	US 1999-374846	19990816
PRAI	JP 1998-230373	A	19980817		
OS	MARPAT 132:341204				
GI					



AB The title compn. contains (A) ethylenically unsatd. compd., (B) **cyanine dye**, and (C) photopolymn. initiator. In the compn., the **cyanine dye** has a structure in which heteroatoms (O, S, or N) are connected by polymethine chains having .gtoreq.1 substituent I (Q1, Q2 = substituents; Q1 may connects with Q2 to form a ring). Preferably, the substituent I is (thio)barbituric acid group. The lithog. printing plate has a layer of the photopolymerizable compn. on a support, and the layer is exposed to light at 700-1300 nm and developed with an alkali soln. for image formation. The photopolymerizable compn. has high sensitivity to visible light and near-IR light.

ST **cyanine dye** photopolymerizable compn lithog printing plate; visible light sensitivity **cyanine dye**

photopolymerizable compn; near IR light sensitivity **cyanine dye** photopolymerizable compn

IT **Cyanine dyes**

Lithographic plates

Photoresists

(photopolymerizable compn. contg. **cyanine dye** for sensitivity to visible light and near-IR light for lithog. printing plate)

IT 259133-57-8 259133-58-9

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(photopolymerizable compn. contg. **cyanine dye** for sensitivity to visible light and near-IR light for lithog. printing plate)

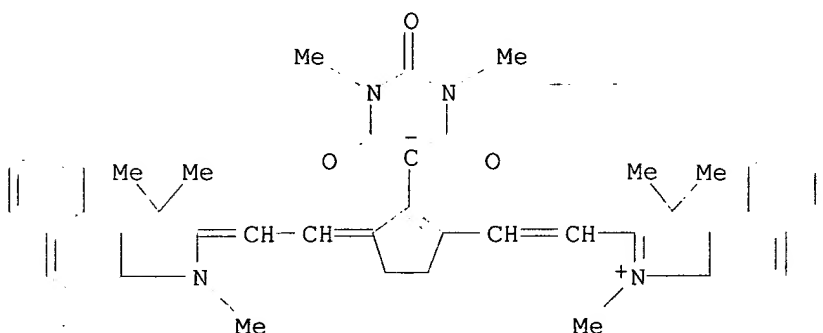
IT 259133-57-8 259133-58-9

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(photopolymerizable compn. contg. **cyanine dye** for sensitivity to visible light and near-IR light for lithog. printing plate)

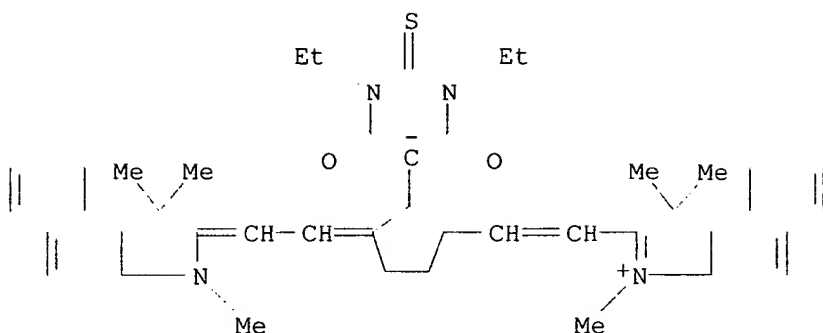
RN 259133-57-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(hexahydro-1,3-dimethyl-2,4,6-trioxo-5-pyrimidinyl)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 259133-58-9 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-(1,3-diethylhexahydro-4,6-dioxo-2-thioxo-5-pyrimidinyl)-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, inner salt (9CI) (CA INDEX NAME)



L18 ANSWER 19 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:205764 HCAPLUS

DN 132:258177

TI Photopolymerizable image-forming material for lithographic plate

IN Urano, Toshiyoshi; Hino, Etsuko; Nagao, Takumi

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-027

ICS G03F007-00; G03F007-029; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000089455	A2	20000331	JP 1998-257893	19980911
OS	MARPAT 132:258177				
AB	The title image-forming material possesses, on a support having a surface where the gum-tape pressure-stuck thereon shows a peeling strength of .ltoreq.500 g/cm, a layer made of a photopolymg. compn. contg. (i) an ethylenic unsatd. compd., a cyanine dye cation in which heterocycles link via a polymethine chain, and an org. B anion or (ii) an ethylenic unsatd. compd., a salt of the cyanine dye cation and a counter anion other than org. B anion, and a halomethyl-contg. compd. The material shows high sensitivity toward near IR region and non-sensitive to UV region, good storage stability, and processability under white fluorescent light.				
ST	IR sensitive lithog plate cyanine dye ; org boron compd presensitized lithog plate; ethylenic compd presensitized lithog plate; halomethyl compd photopolymerizable compn				
IT	Lithographic plates (presensitized; presensitized lithog. plate contg. ethylenic compd., cyanine dye , and org. boron compd. or halomethyl compd.)				
IT	949-42-8	3584-23-4,	2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine	24305-03-1	32435-46-4, Bis(methacryloyloxyethyl) phosphate
	42573-57-9,	2-(p-Methoxystyryl)-4,6-bis(trichloromethyl)-s-triazine			
	52628-03-2,	Methacryloyloxyethyl phosphate	69432-40-2	77001-81-1	
	91105-84-9	117522-01-7, Tetramethylammonium butyltriphenylborate			
	119235-84-6	191726-37-1, Tetramethylammonium butyltris(2,6-difluorophenyl)borate	193687-63-7	211796-67-7	211796-69-9
	219537-49-2	220271-46-5	262380-41-6		

RL: DEV (Device component use); USES (Uses)
(presensitized lithog. plate contg. ethylenic
compd., cyanine dye, and org. boron compd. or
halomethyl compd.)

IT 193687-63-7 220271-46-5

RL: DEV (Device component use); USES (Uses)
(presensitized lithog. plate contg. ethylenic
compd., cyanine dye, and org. boron compd. or
halomethyl compd.)

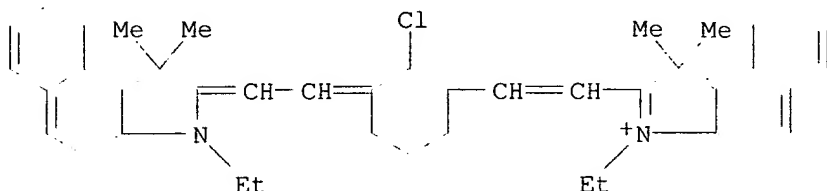
RN 193687-63-7 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-
benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-1,1-
dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 193687-62-6

CMF C42 H44 Cl N2

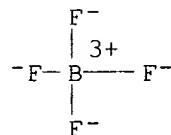


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



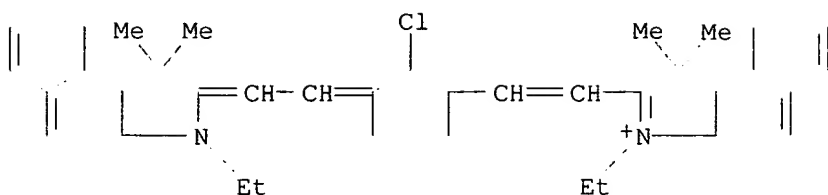
RN 220271-46-5 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-
benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-1,1-
dimethyl-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 193687-62-6

CMF C42 H44 Cl N2

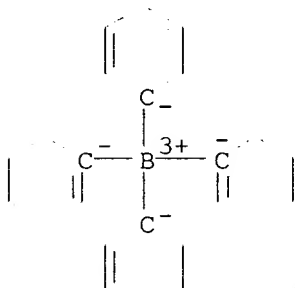


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



L18 ANSWER 20 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:819308 HCAPLUS

DN 132:71387

TI Thermal imaging material for lithographic plate preparation

IN Shimazu, Ken-ichi; Patel, Jayanti; Saraiya, Shashikant; Merchant, Nishith; Savariar-Hauck, Celin; Timpe, Hans-joachim; McCullough, Christopher D.

PA Kodak Polychrome Graphics LLC, USA

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B41M

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9967097	A2	19991229	WO 1999-US12689	19990608
	W: JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6352812	B1	20020305	US 1999-301866	19990429
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A	19990429		
AB	A thermal imaging material which can be imaged by imagewise exposure with an IR laser or a thermal head and suited for lithog. plate prepn. comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aq. soln.-developable polymer				

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

mixt. contg. a photothermal conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aq. soln.-sol. **polymers** which are sol. or dispersible in a **solvent** which does not dissolve the first layer. The material is exposed with an IR laser or a thermal head and upon development of the imaged material in an aq. soln., the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aq. fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a photothermal conversion material.

ST IR laser thermal imaging material lithog plate prepn

IT Lithographic plates

(IR-laser-sensitive thermal imaging materials with two **polymer** layers on hydrophilic substrates for prepn. of)

IT Thermal printing materials

(IR-laser-sensitive; with two **polymer** layers on hydrophilic substrates for lithog. plate prepn.)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(Special Black 250; IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)
(carboxy-contg., T 71; IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)
(dimethylmaleimido-contg., AK 128; IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

IT Recording materials

(thermal, IR-laser-sensitive; with two **polymer** layers on hydrophilic substrates for lithog. plate prepn.)

IT 9011-14-7, Poly(methyl methacrylate)

RL: TEM (Technical or engineered material use); USES (Uses)
(A 21; IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate phthalate

9004-70-0, E950 9010-88-2, Acryloid B-82 25608-33-7, Acryloid B-66

58229-85-9, Acryloid B-44 73546-46-0D, reaction products with

mesitylenesulfonic acid 106209-33-0, SMA-1000 134127-48-3

220971-22-2, PD 140A 253270-56-3, Carboset 500 253272-47-8, Nega 107

RL: TEM (Technical or engineered material use); USES (Uses)
(IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

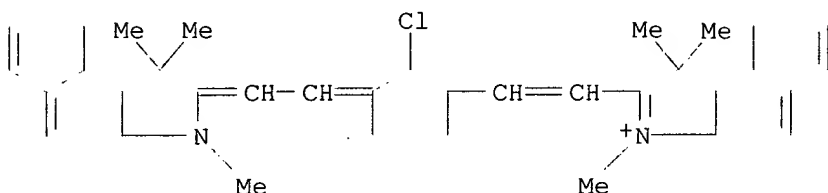
IT 9002-84-0

RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate prepn. with **polymer** layers contg.)

IT 58748-38-2

RL: TEM (Technical or engineered material use); USES (Uses)
(National Starch 28-2930; IR-laser-sensitive thermal imaging materials

for lithog. plate prepn. with **polymer** layers contg.)
 IT 9003-35-4, SD 140
 RL: TEM (Technical or engineered material use); USES (Uses)
 (PN 430, SD 140; IR-laser-sensitive thermal imaging materials for
 lithog. plate prepn. with **polymer** layers contg.)
 IT 58206-31-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Scripset 540, Scripset 550; IR-laser-sensitive thermal imaging
 materials for lithog. plate prepn. with **polymer** layers
 contg.)
 IT 134127-48-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (IR-laser-sensitive thermal imaging materials for **lithog.**
plate prepn. with polymer layers contg.)
 RN 134127-48-3 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-
 benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-
 trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX
 NAME)
 CM 1
 CRN 134127-47-2
 CMF C40 H40 Cl N2



CM 2
 CRN 16722-51-3
 CMF C7 H7 O3 S



L18 ANSWER 21 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1999:808576 HCAPLUS
 DN 132:57151
 TI Method for making positive working printing plates from a heat mode
 sensitive image element
 IN Deroover, Geert; Vermeersch, Joan; Van Damme, Marc
 PA Agfa-Gevaert, N.V., Belg.
 SO U.S., 8 pp.
 CODEN: USXXAM
 DT Patent

LA English
 IC ICM G03F007-11
 NCL 430302000
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6004728	A	19991221	US 1998-163367	19980930
PRAI	US 1998-70499P	P	19980105		

AB According to the present invention there is provided a method for making lithog. printing plates including the following steps (a) prepg. a heat mode imaging element having on a lithog. base with a hydrophilic surface a 1st layer including a polymer, sol. in an aq. alk. soln. and a top layer on the same side of the lithog. base as the 1st layer which top layer is sensitive to IR-radiation and is un-penetrable for an alk. developer contg. SiO₂ as silicate; (b) exposing imagewise the heat mode imaging element to IR-radiation; (c) developing the imagewise exposed heat mode imaging element with the alk. developer so that the exposed areas of the top layer and the underlying areas of the 1st layer are dissolved and the unexposed areas of the 1st layer remain undissolved characterized in that the top layer includes an IR-dye.

ST pos working printing thermal plate heat sensitive image element

IT **Dyes**
 (IR, **cyanine**; pos. working thermal printing plate based on alkali-sol. binder developed with)

IT Lithographic plates
 Lithography
 Thermal printing materials
 (pos. working thermal printing plate based on alkali-sol. binder developed with)

IT 118-41-2, 3,4,5-Trimethoxybenzoic acid, uses 7429-90-5, Aluminum, uses RL: DEV (Device component use); NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
 (lithog. base for pos. working thermal printing plate based on alkali-sol. binder)

IT 53321-16-7, Carbopol WS 801 **221661-30-9**
 RL: DEV (Device component use); NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
 (lithog. top layer for pos. working thermal printing plate based on alkali-sol. binder contg.)

IT 252847-60-2, EP 26 (developer)
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (pos. working thermal printing plate based on alkali-sol. binder developed with)

IT 7631-86-9, Silica, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (pos. working thermal printing plate based on alkali-sol. binder developed with soln. contg. sodium oxide and)

IT 1313-59-3, Sodium oxide (Na₂O), reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (pos. working thermal printing plate based on alkali-sol. binder developed with with soln. contg. silica and)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; EP 0732628 A1 1896 HCAPLUS
- (2) Anon; GB 1154568 1969 HCAPLUS
- (3) Anon; GB 1155035 1969 HCAPLUS
- (4) Anon; GB 1160221 1969
- (5) Anon; GB 1245924 1971

- (6) Anon; EP 0347245 A2 1989 HCAPLUS
- (7) Anon; EP 0347245 A3 1989 HCAPLUS
- (8) Haley; US 5466557 1995 HCAPLUS
- (9) Narayanan; J Org Chem 1995, V60, P2391 HCAPLUS
- (10) Nishimiya; US 5807659 1998 HCAPLUS
- (11) Takeda; US 5858604 1999 HCAPLUS

IT 221661-30-9

RL: DEV (Device component use); NUU (Other use, unclassified); TEM
(Technical or engineered material use); USES (Uses)
(lithog. top layer for pos. working thermal printing
plate based on alkali-sol. binder contg.)

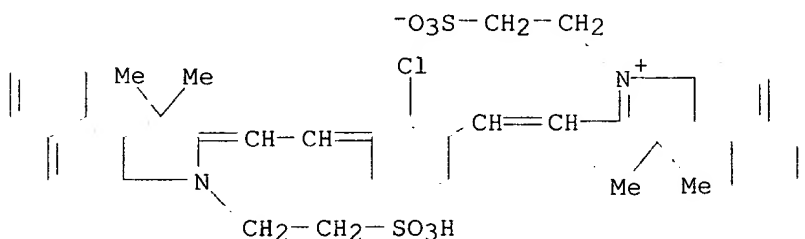
RN 221661-30-9 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1,1-dimethyl-3-(2-sulfoethyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-(2-sulfoethyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 221661-29-6

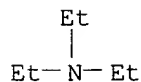
CMF C42 H43 Cl N2 O6 S2



CM 2

CRN 121-44-8

CMF C6 H15 N



L18 ANSWER 22 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 1999:482019 HCAPLUS
DN 131:108956
TI heat-sensitive imaging element for producing lithographic plate
IN Vermeersch, Joan; Van Damme, Marc; Kokkelenberg, Dirk
PA Agfa-Gevaert N.V., Belg.
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM B41C001-10
ICS B41M005-36; B41M005-40
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

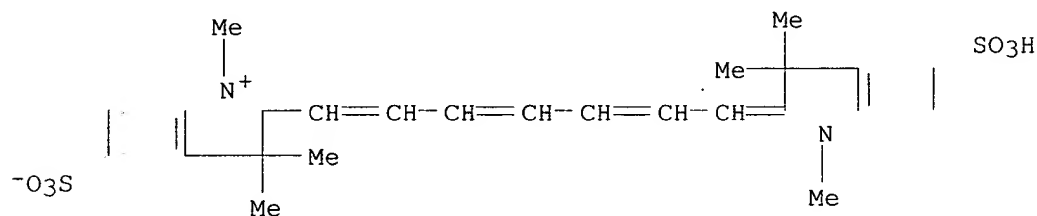
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 931647	A1	19990728	EP 1998-200187	19980123
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 11265062	A2	19990928	JP 1999-11908	19990120
PRAI	EP 1998-200187		19980123		
AB	According to the present invention there is provided a heat-sensitive imaging element for producing a lithog. plate comprising on a lithog. base with a hydrophilic surface an image-forming layer including thermoplastic particles of a homopolymer or a copolymer of styrene and a hydrophilic polymer contg. carboxyl groups, characterized in that the imaging element further contains an anionic IR cyanine dye being present in the image-forming layer or a layer adjacent thereto.				
ST	IR thermal imaging material lithog plate; cyanine dye imaging material lithog plate				
IT	Thermal printing materials (contg. thermoplastic particles, hydrophilic polymers, and anionic IR cyanine dyes for lithog. plate prepn.)				
IT	Lithographic plates (thermal imaging materials contg. thermoplastic particles, hydrophilic polymers, and anionic IR cyanine dyes for prepn. of)				
IT	Polyvinyl acetals RL: TEM (Technical or engineered material use); USES (Uses) (thermal imaging materials for lithog. plate prepn. with aluminum substrates treated with)				
IT	Recording materials (thermal; contg. thermoplastic particles, hydrophilic polymers, and anionic IR cyanine dyes for lithog. plate prepn.)				
IT	9003-53-6, Polystyrene RL: TEM (Technical or engineered material use); USES (Uses) (thermal imaging materials for lithog. plate prepn. contg. anionic IR cyanine dyes , hydrophilic polymers and)				
IT	9002-89-5, Mowiol 56-98 53321-16-7; Carbopol WS 801 RL: TEM (Technical or engineered material use); USES (Uses) (thermal imaging materials for lithog. plate prepn. contg. thermoplastic particles, anionic IR cyanine dyes and)				
IT	135408-43-4 221661-30-9 RL: TEM (Technical or engineered material use); USES (Uses) (thermal imaging materials for lithog. plate prepn. contg. thermoplastic particles, hydrophilic polymers and)				
IT	26101-52-0, Poly(vinylsulfonic acid) 27754-99-0, Poly(vinylphosphonic acid) 37221-30-0, Poly(vinyl alcohol) sulfate 37275-78-8, Poly(vinyl alcohol) phosphate 50851-57-5, Poly(vinylbenzenesulfonic acid) 52285-33-3 RL: TEM (Technical or engineered material use); USES (Uses) (thermal imaging materials for lithog. plate prepn. with aluminum substrates treated with)				
RE.CNT	4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD				
RE	(1) Agfa Gevaert Nv; EP 0770495 A 1997 HCAPLUS (2) Agfa Gevaert Nv; EP 0770497 A 1997 HCAPLUS (3) Eastman Kodak Co; EP 0636491 A 1995 HCAPLUS (4) Riedel De Haen Ag; EP 0694586 A 1996 HCAPLUS				
IT	135408-43-4 221661-30-9 RL: TEM (Technical or engineered material use); USES (Uses)				

(thermal imaging materials for lithog. plate prepn.
contg. thermoplastic particles, hydrophilic polymers and)

RN 135408-43-4 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-5-sulfo-2H-indol-2-ylidene)-
1,3,5-heptatrienyl]-1,3,3-trimethyl-5-sulfo-, inner salt, sodium salt
(9CI) (CA INDEX NAME)



● Na

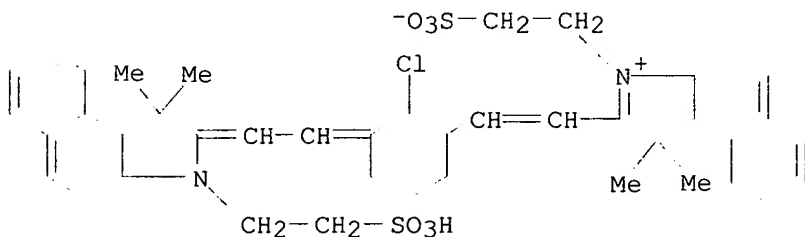
RN 221661-30-9 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1,1-dimethyl-3-(2-sulfoethyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-(2-sulfoethyl)-, inner salt, compd. with
N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 221661-29-6

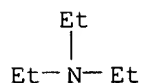
CMF C42 H43 Cl N2 O6 S2



CM 2

CRN 121-44-8

CMF C6 H15 N



L18 ANSWER 23 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 1999:425564 HCAPLUS

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

DN 131:52041
 TI Heat-sensitive non-ablatable wasteless imaging element for lithographic plate preparation
 IN Leenders, Luc; Van Rompuy, Ludo
 PA Agfa-Gevaert N.V., Belg.
 SO Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM B41C001-10
 ICS B41M005-36
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 925916	A1	19990630	EP 1998-203792	19981110
	EP 925916	B1	20020410		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11240270	A2	19990907	JP 1998-348769	19981208
PRAI	EP 1997-203855	A	19971209		
AB	According to the present invention there is provided a heat-sensitive non-ablatable wasteless imaging element for providing a lithog. printing plate with a difference in dye d. between the image and nonimage areas comprising on a support a top layer which is capable of forming by imagewise exposure hydrophobic and hydrophilic areas, characterized in that the imaging element contains an IR dye capable of changing its optical d. by exposure of the imaging element.				
ST	thermoimaging compn lithog plate IR dye				
IT	Thermal printing materials (contg. IR cyanine dyes for prepn. of lithog. plates)				
IT	Lithographic plates (thermal recording materials contg. IR cyanine dyes for prepn. of)				
IT	Recording materials (thermal; contg. IR cyanine dyes for prepn. of lithog. plates)				
IT	135408-43-4 227610-53-9 RL: TEM (Technical or engineered material use); USES (Uses) (IR dye for thermal recording materials for prepg. lithog. plates with difference in dye d. between image and nonimage areas)				

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

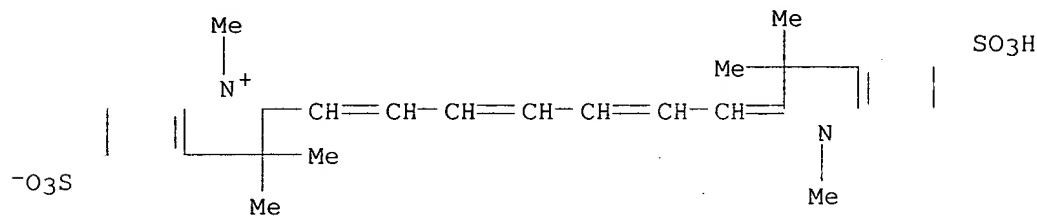
- (1) Agfa Gevaert NV; EP 0773112 A 1997 HCAPLUS
- (2) Anon; RESEARCH DISCLOSURE 1992, 333
- (3) De Haen Ag, R; EP 0694586 A 1996 HCAPLUS
- (4) Fritz, U; US 4034183 A 1977 HCAPLUS
- (5) Minnesota Mining & Mfg; EP 0652483 A 1995 HCAPLUS
- (6) Technische Hochschule Leipzig; DD 213530 A 1984 HCAPLUS
- (7) Technische Hochschule Leipzig; DD 217645 A 1985 HCAPLUS
- (8) Technische Hochschule Leipzig; DD 217914 A 1985 HCAPLUS

IT **135408-43-4 227610-53-9**

RL: TEM (Technical or engineered material use); USES (Uses)
 (IR dye for thermal recording materials for prepg. **lithog. plates** with difference in dye d. between image and nonimage areas)

RN 135408-43-4 HCAPLUS

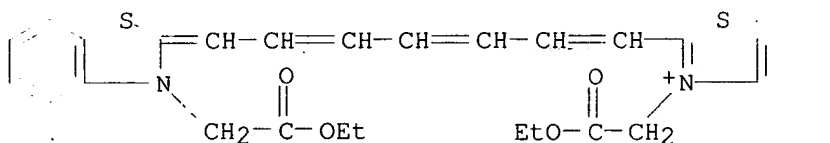
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-5-sulfo-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-5-sulfo-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 227610-53-9 HCAPLUS

CN Benzothiazolium, 3-(2-ethoxy-2-oxoethyl)-2-[7-[3-(2-ethoxy-2-oxoethyl)-2(3H)-benzothiazolylidene]-1,3,5-heptatrienyl]- (9CI) (CA INDEX NAME)



L18 ANSWER 24 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:277522 HCAPLUS

DN 130:345072

TI Laser direct-imaging type lithographic plate material

IN Kitatani, Katsushi; Aoshima, Keitaro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

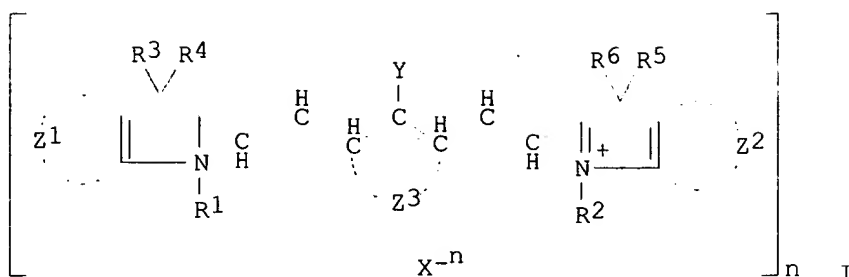
IC ICM G03F007-004

ICS B41N001-14; C09B023-00; G03F007-038; C07D209-14; C07D209-60

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11119421	A2	19990430	JP 1997-275711	19971008
OS	MARPAT 130:345072				
GI					



- AB The title lithog. plate material contains, as an IR absorbent, a **cyanine dye I** (R1-6 = alkyl; Z1, Z2 = nonmetal atoms required to form a benzo or naphtho condensed ring along with the C:C group; Z3 = nonmetal atoms required to form a 5- or 6-membered ring along with the CHC:CH group; Y = H or monovalent substituent; X-n = anion with n valences; n = 2-4). The material is capable of direct platemaking from digital data by using IR ray lasers and shows high photosensitivity and printability.
- ST laser imaging presensitized lithog plate; IR absorbent **cyanine dye** lithog plate
- IT Optical materials
Optical materials
(IR absorbers; laser direct-imaging type lithog. plate contg. **cyanine dye** as IR absorbent)
- IT IR materials
IR materials
(absorbers; laser direct-imaging type lithog. plate contg. **cyanine dye** as IR absorbent)
- IT Lithographic plates
(presensitized; laser direct-imaging type lithog. plate contg. **cyanine dye** as IR absorbent)
- IT 110726-28-8DP, 1-[.alpha.-Methyl-.alpha.-(4-hydroxyphenyl)ethyl]-4-[.alpha.,.alpha.-bis(4-hydroxyphenyl)ethyl]benzene, hexamethoxymethylated
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(crosslinking agent; laser-direct-imaging type lithog. plate contg. **cyanine dye** as IR absorbent)
- IT 2633-67-2, 4-Vinylbenzenesulfonyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of cyclohexyl alc.)
- IT 108-93-0, Cyclohexyl alcohol, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification with vinylbenzenesulfonyl chloride)
- IT 224312-63-4P 224312-64-5P
RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(laser direct-imaging type lithog. plate contg. **cyanine dye** as IR absorbent)
- IT 211308-93-9P
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and polymn. of)
- IT 50-00-0, Formaldehyde, reactions 67-56-1, Methanol, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of crosslinking agent)
- IT 51770-81-1, Sodium naphthalene-2,7-disulfonate 134127-48-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of **cyanine dye**)

IT 110726-28-8, 1- $[\alpha\text{-Methyl-}\alpha\text{-(4-hydroxyphenyl)ethyl-4-}[\alpha\text{-}\alpha\text{-bis(4-hydroxyphenyl)ethyl]benzene}$

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with formaldehyde and methanol for prepn. of crosslinking agent)

IT 211308-94-0P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(sulfonic acid-generating polymer; laser direct-imaging type lithog. plate contg. **cyanine dye** as IR absorbent)

IT 224312-63-4P 224312-64-5P

RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(laser direct-imaging type lithog. plate contg. **cyanine dye** as IR absorbent)

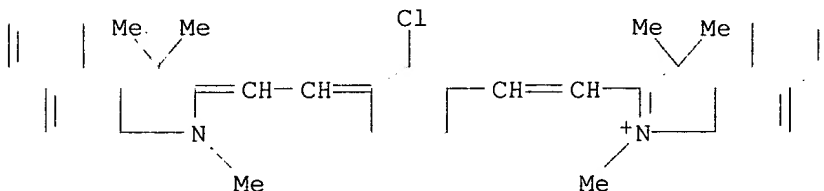
RN 224312-63-4 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, 2,7-naphthalenedisulfonate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

CMF C40 H40 Cl N2



CM 2

CRN 46900-28-1

CMF C10 H6 O6 S2



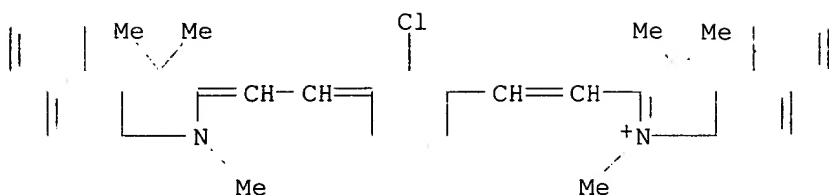
RN 224312-64-5 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, 1,3,6-naphthalenetrisulfonate (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 134127-47-2

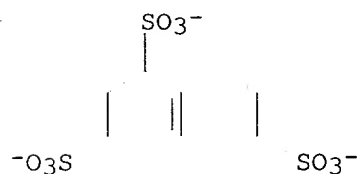
CMF C40 H40 Cl N2



CM 2

CRN 93041-41-9

CMF C10 H5 O9 S3



L18 ANSWER 25 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1999:238783 HCAPLUS
 DN 130:318624
 TI Photosensitive material containing infrared absorber and agent for multiplying acid or diazo compound for lithographic plate
 IN Kudou, Shinji
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-004
 ICS G03F007-004; B41N001-14; G03F007-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11102066	A2	19990413	JP 1997-261914	19970926
AB	The title material comprises a support coated with a photosensitive layer contg. (a) a compd. generating acid under active ray irradiation, (b) a compd. having an acid-decomposable portion, (c) an IR absorbent, and either (d) an acid-multiplying agent or (e) a diazo compd. The photosensitive layer may contain (a), (c), either (d) or (e), and a compd. which becomes insol. in alkali in the presence of acid. The material using IR exposure system shows improved storage stability and photosensitivity.				
ST	lithog plate photosensitive material acid multiplying; IR absorber diazo compd lithog plate; storage stability IR exposure lithog plate				
IT	Cyanine dyes Optical materials Optical materials (IR absorbers; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)				

- IT IR materials
IR materials
(absorbers; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT Aminoplasts
RL: TEM (Technical or engineered material use); USES (Uses)
(acid-insolubilizing agent; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT Azo compounds
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT Lithographic plates
(presensitized; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(resol, acid-insolubilizing agent; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT 23178-67-8 115970-68-8 173474-43-6
RL: TEM (Technical or engineered material use); USES (Uses)
(IR absorbers; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT 134335-38-9P 223391-81-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acid generator; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT 4257-81-2 42573-57-9, TAZ 110 80309-01-9 219736-12-6
RL: TEM (Technical or engineered material use); USES (Uses)
(acid generator; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT 3089-11-0, Hexamethoxymethylmelamine 212693-31-7, CKP 918
RL: TEM (Technical or engineered material use); USES (Uses)
(acid-insolubilizing agent; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT 25266-14-2P, Ethylene oxide-formaldehyde copolymer 115815-82-2P 215865-74-0P, Cyclohexanone-ethylene glycol copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(decomposable; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)
- IT 108-94-1, Cyclohexanone, reactions 122-99-6, Phenyl Cellosolve
RL: RCT (Reactant); RACT (Reactant or reagent)
(photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate contg. decomposable compd. from)
- IT 16941-11-ODP, Ammonium hexafluorophosphate, reaction product with diazonium resin 32762-05-3DP, 4-Diazodiphenylamine hydrogen sulfate-p-hydroxybenzoic acid-formaldehyde copolymer, reaction product with ammonium hexafluorophosphate 41432-19-3DP, 4-Diazodiphenylamine hydrogen sulfate-formaldehyde copolymer, reaction product with ammonium

hexafluorophosphate

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)

IT 75620-67-6 138806-47-0 168281-30-9 169262-39-9 184289-71-2
 188590-03-6 200441-10-7 202058-60-4 223433-60-1 223433-62-3
 223571-08-2

RL: TEM (Technical or engineered material use); USES (Uses)

(photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)

IT 23178-67-8 115970-68-8 173474-43-6

RL: TEM (Technical or engineered material use); USES (Uses)

(IR absorbers; photosensitive material contg. IR absorber and agent for multiplying acid or diazo compd. for lithog. plate with storage stability)

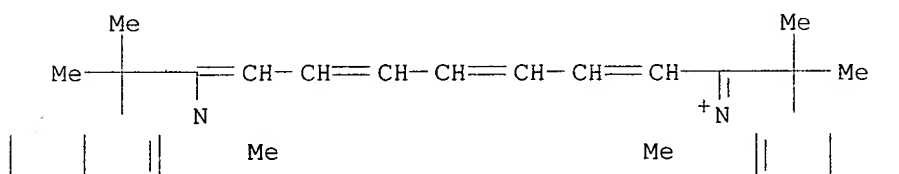
RN 23178-67-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 47809-39-2

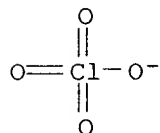
CMF C37 H37 N2



CM 2

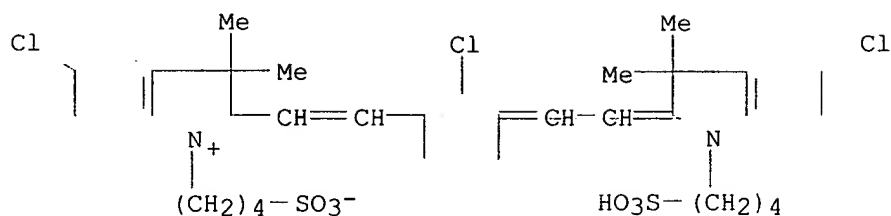
CRN 14797-73-0

CMF C1 O4



RN 115970-68-8 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[2-chloro-3-[[5-chloro-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethyldene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)

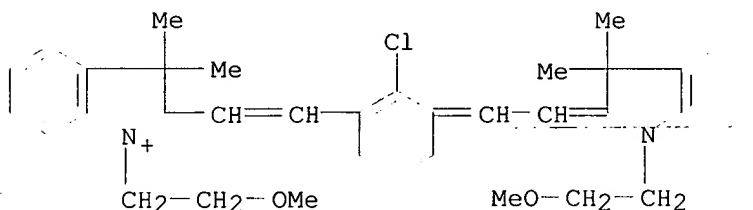


● Na

RN 173474-43-6 HCAPLUS
 CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

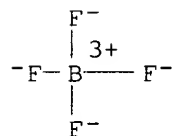
CM 1

CRN 102185-06-8
 CMF C36 H44 Cl N2 O2



CM 2

CRN 14874-70-5
 CMF B F4
 CCI CCS



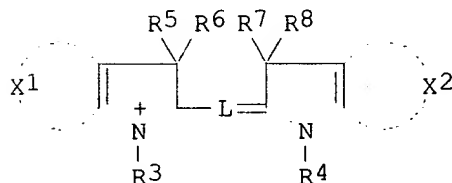
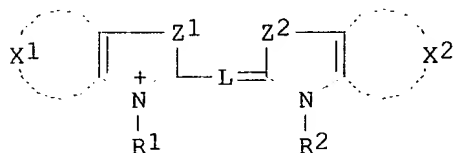
L18 ANSWER 26 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1998:594727 HCAPLUS
 DN 129:267947
 TI Photosensitive image-forming material containing **cyanine dye**
 IN Hirai, Katsura; Kudo, Shinji
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM G03F007-004
 ICS G03F007-028; G03F007-039; G03F007-30
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41

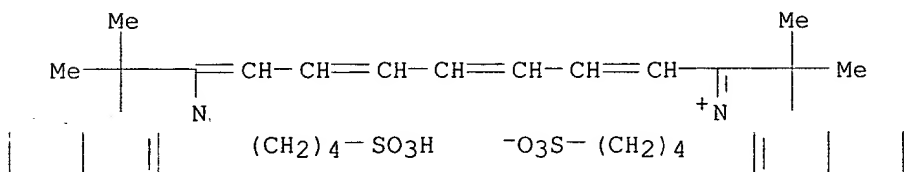
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10239834	A2	19980911	JP 1997-47854	19970303
GI					



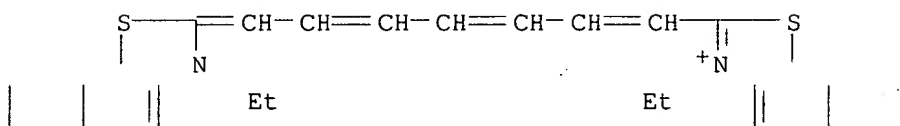
- AB The title material comprises a support coated with a photosensitive layer contg. a compd. generating acid upon active ray irradiation, a compd. having a bond that can be cross-linked in the presence of acid, and a **cyanine dye** I or II [Z1, Z2 = S, O, Se; X1, X2 = nonmetal atoms required to form a benzo or naphtho condensed ring which may be substituted; L = C5-13 conjugated bond chain; R1, R2 = C1-5 alkyl, C1-5 alkoxy, [(CH2)nO]k(CH2)mOR9 (III), R10SO3M1 (IV), R10CO2M2 (V) (n, m = 1-3; k = 0 or 1; R9 = C1-5 alkyl; R10 = C1-5 alkylene or alkyleneoxy; M1 = H, alkali metal; M2 = H, alkali metal, cationic atoms), either of R1 or R2 is an anionic dissociation group; R3, R4 = C1-5 alkoxy, III, IV, V, either one is an anionic dissociation group; R5-8 = C1-3 alkyl, H, halo]. The material is imagewise exposed using IR rays and developed with an alkali developing solution to remove the unexposed area to form an image. The material shows high sensitivity and provides high resolution images by using IR rays.
- ST presensitized lithographic plate **cyanine dye**; acid generator
 IR sensitive lithographic plate; crosslinking agent image forming material
- IT **Cyanine dyes**
 (presensitized lithographic plate containing acid generator, acid-crosslinking compound, and **cyanine dye**)
- IT Lithographic plates
 (presensitized; presensitized lithographic plate containing acid generator, acid-crosslinking compound, and **cyanine dye**)
- IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (resolution, crosslinking agent; presensitized lithographic plate containing acid generator, acid-crosslinking compound, and **cyanine dye**)

- IT 949-42-8
RL: TEM (Technical or engineered material use); USES (Uses)
(acid generator; presensitized lithog. plate contg. acid generator, acid-crosslinking compd., and **cyanine dye**)
- IT 937-35-9 212693-31-7, Shonol CKP 918
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent; presensitized lithog. plate contg. acid generator, acid-crosslinking compd., and **cyanine dye**)
- IT 3443-85-4 3599-32-4 23178-65-6 31998-13-7
53655-17-7 55281-19-1 102185-07-9
102567-14-6 115970-68-8 173474-43-6
213621-33-1 213621-35-3 213621-36-4
213621-37-5 213621-38-6 213621-39-7
213621-41-1 213621-44-4 213621-47-7
213621-50-2
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(presensitized lithog. plate contg. acid generator, acid-crosslinking compd., and **cyanine dye**)
- IT 213621-53-5, Acrylonitrile-ethyl acrylate-ethyl methacrylate-4-hydroxyphenylmethacrylamide-methacrylic acid-vinyl benzylacetate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(presensitized lithog. plate contg. acid generator, acid-crosslinking compd., and **cyanine dye**)
- IT 3599-32-4 23178-65-6 53655-17-7
55281-19-1 102185-07-9 102567-14-6
115970-68-8 173474-43-6 213621-33-1
213621-35-3 213621-36-4 213621-37-5
213621-38-6 213621-39-7 213621-41-1
213621-44-4 213621-47-7 213621-50-2
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(presensitized lithog. plate contg. acid generator, acid-crosslinking compd., and **cyanine dye**)
- RN 3599-32-4 HCAPLUS
- CN 1H-Benz[e]indolium, 2-[7-[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrienyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

- RN 23178-65-6 HCAPLUS
- CN Naphtho[2,1-d]thiazolium, 3-ethyl-2-[7-(3-ethylnaphtho[2,1-d]thiazol-2(3H)-ylidene)-1,3,5-heptatrienyl]-, iodide (9CI) (CA INDEX NAME)

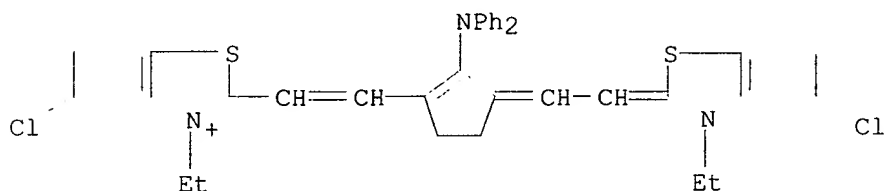


● I⁻

RN 53655-17-7 HCAPLUS
 CN Benzothiazolium, 5-chloro-2-[2-[3-[(5-chloro-3-ethyl-2(3H)-benzothiazolyldiene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-3-ethyl-, perchlorate (9CI) (CA INDEX NAME)

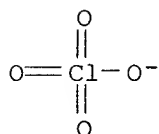
CM 1

CRN 53655-16-6
 CMF C39 H34 Cl2 N3 S2



CM 2

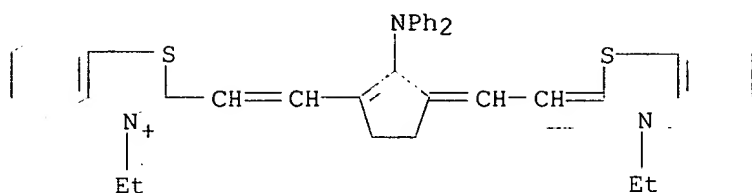
CRN 14797-73-0
 CMF Cl O4



RN 55281-19-1 HCAPLUS
 CN Benzothiazolium, 2-[2-[2-(diphenylamino)-3-[(3-ethyl-2(3H)-benzothiazolyldiene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-3-ethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

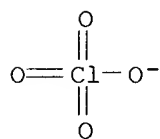
CRN 55281-18-0
 CMF C39 H36 N3 S2



CM 2

CRN 14797-73-0

CMF Cl O4



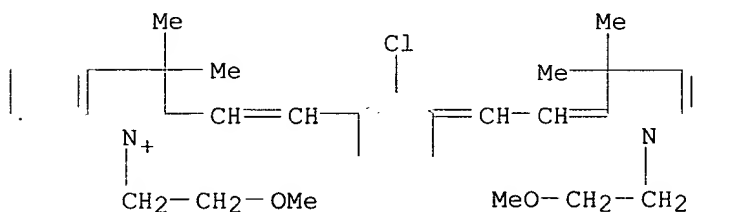
RN 102185-07-9 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

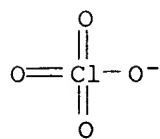
CMF C36 H44 Cl N2 O2



CM 2

CRN 14797-73-0

CMF Cl O4



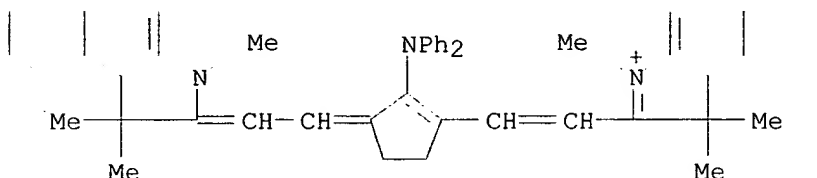
RN 102567-14-6 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 98970-31-1

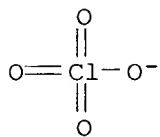
CMF C51 H48 N3



CM 2

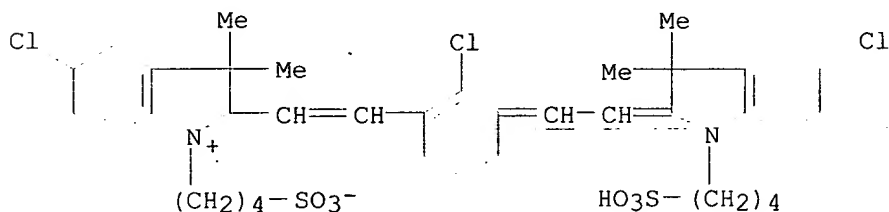
CRN 14797-73-0

CMF Cl O4



RN 115970-68-8 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[2-chloro-3-[[5-chloro-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



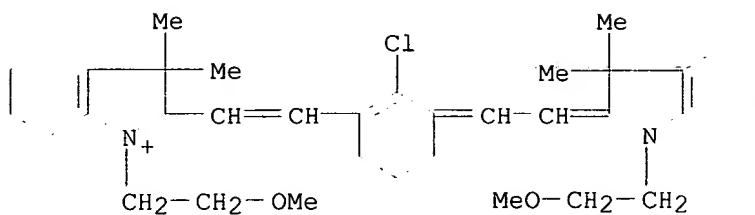
● Na

RN 173474-43-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

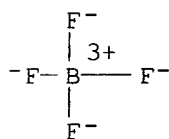
CM 1

CRN 102185-06-8
CMF C36 H44 Cl N2 O2

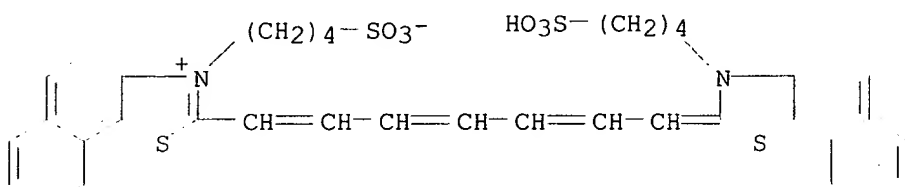


CM 2

CRN 14874-70-5
CMF B F4
CCI CCS

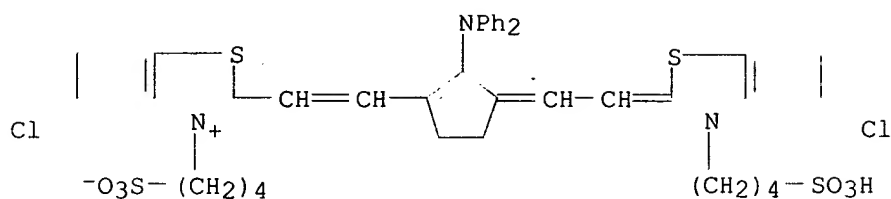


RN 213621-33-1 HCAPLUS
CN Naphtho[2,1-d]thiazolium, 3-(4-sulfobutyl)-2-[7-[3-(4-sulfobutyl)naphtho[2,1-d]thiazol-2(3H)-ylidene]-1,3,5-heptatrienyl]-, inner salt, sodium salt (9CI)- (CA INDEX NAME)



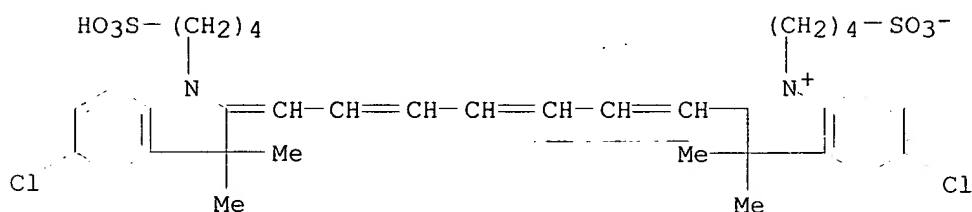
● Na

RN 213621-35-3 HCAPLUS
CN Benzothiazolium, 5-chloro-2-[2-[3-[5-chloro-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-3-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 213621-36-4 HCAPLUS

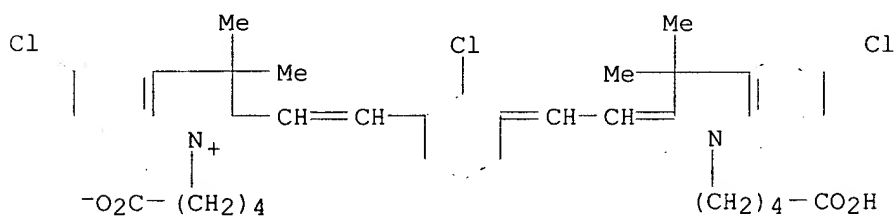
CN 3H-Indolium, 5-chloro-2-[7-[5-chloro-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 213621-37-5 HCAPLUS

CN 3H-Indolium, 1-(4-carboxybutyl)-2-[2-[3-[[1-(4-carboxybutyl)-5-chloro-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-5-chloro-3,3-dimethyl-, inner salt (9CI) (CA INDEX NAME)



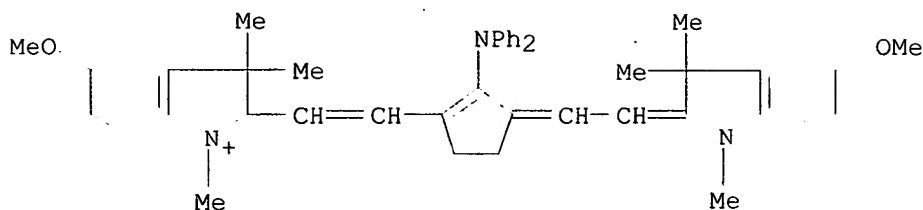
RN 213621-38-6 HCAPLUS

CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-5-methoxy-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-5-methoxy-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 177167-99-6

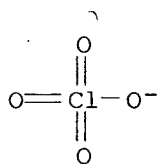
CMF C45 H48 N3 O2



CM 2

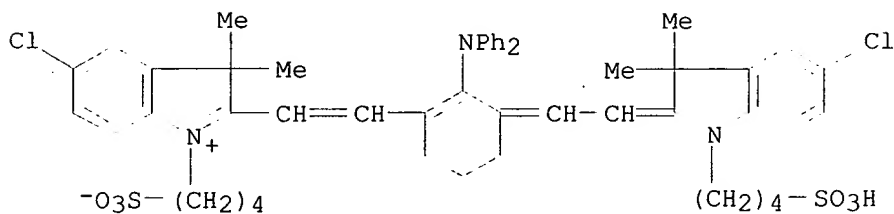
CRN 14797-73-0

CMF Cl O4



RN 213621-39-7 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[3-[[5-chloro-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(diphenylamino)-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

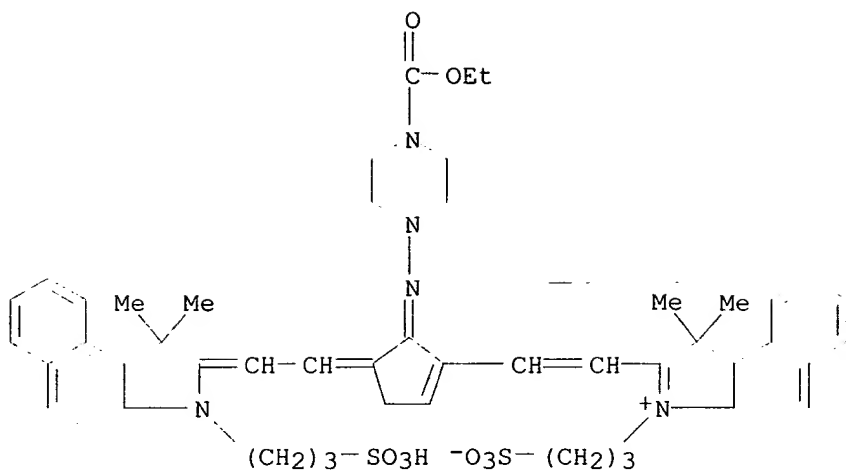
RN 213621-41-1 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[4-[[1,3-dihydro-1,1-dimethyl-3-(3-sulfopropyl)-2H-benz[e]indol-2-ylidene]ethylidene]-5-[[4-(ethoxycarbonyl)-1-piperazinyl]imino]-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 213621-40-0

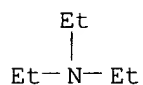
CMF C50 H57 N5 O8 S2



CM 2

CRN 121-44-8

CMF C6 H15 N



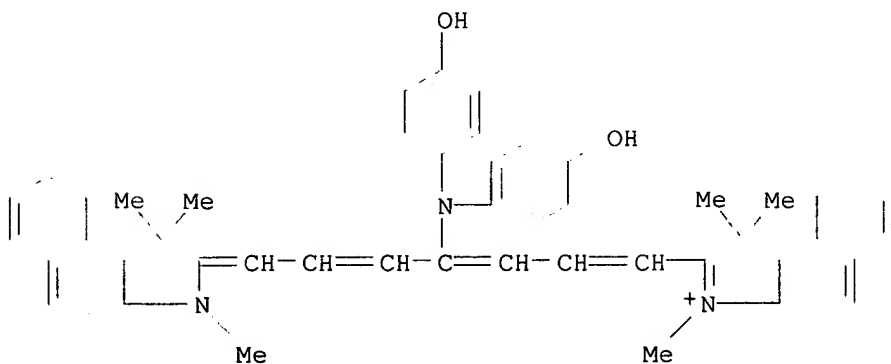
RN 213621-44-4 HCAPLUS

CN 1H-Benz[e]indolium, 2-[4-[bis(4-hydroxyphenyl)amino]-7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, perchlorate (salt) (9CI) (CA INDEX NAME)

CM 1

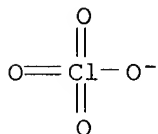
CRN 213621-43-3

CMF C49 H46 N3 O2



CM 2

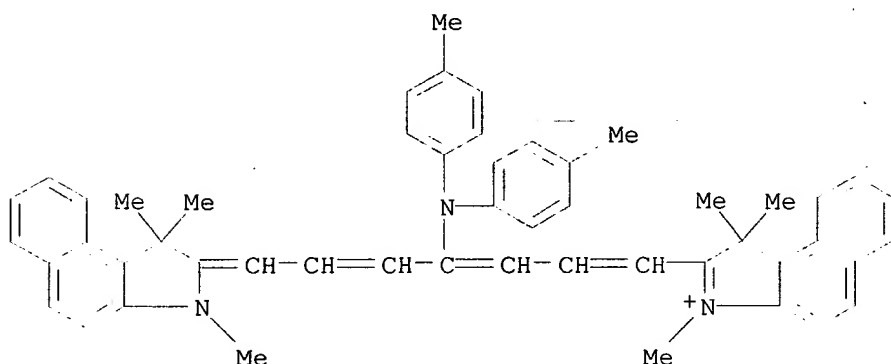
CRN 14797-73-0
CMF Cl O4



RN 213621-47-7 HCAPLUS
CN 1H-Benz[e]indolium, 2-[4-[bis(4-methylphenyl)amino]-7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

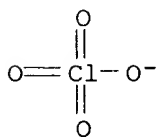
CM 1

CRN 213621-46-6
CMF C51 H50 N3

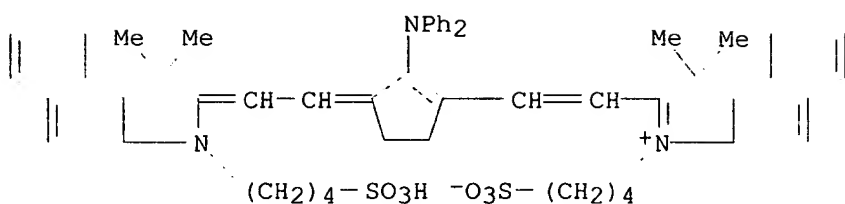


CM 2

CRN 14797-73-0
CMF Cl O4



RN 213621-50-2 HCAPLUS
CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



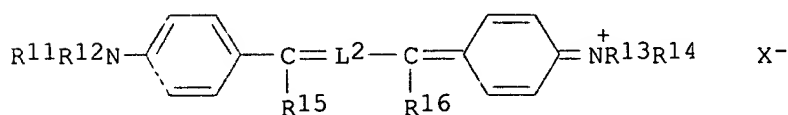
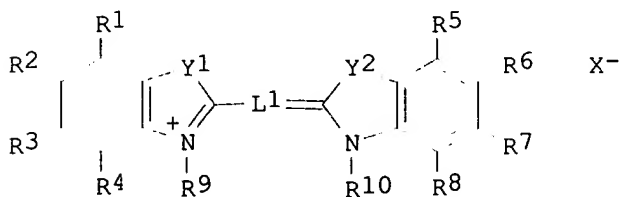
● Na

L18 ANSWER 27 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1997:571507 HCAPLUS
 DN 127:169097
 TI Photosensitive composition for lithographic printing plate preparation
 IN Nagasaka, Hideki; Murata, Akihisa; Urano, Toshiyuki; Takasaki, Ryuichiro
 PA Mitsubishi Chemical Corporation, Japan
 SO Eur. Pat. Appl., 34 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM G03F007-038
 ICS G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 784233	A1	19970716	EP 1997-100191	19970108
	R: DE, FR, GB				
	JP 09244226	A2	19970919	JP 1996-54849	19960312
	JP 10090881	A2	19980410	JP 1996-324025	19961204
	JP 3266017	B2	20020318		
	US 5814431	A	19980929	US 1997-778783	19970106
PRAI	JP 1996-2176	A	19960110		
	JP 1996-54849	A	19960312		
	JP 1996-193587	A	19960723		

GI



- AB The title photosensitive compn. comprises (a) a resin selected from the group consisting of novolak resins and polyvinylphenol resins, (b) an amino compd. capable of curing the resin, (c) at least one member selected from the group consisting of cyanine compds. of the formula I and polymethine compds. of the formula II, wherein each of R1 to R8 which are independent of one another, is a hydrogen atom, a halogen atom or a nitro group, or the adjacent groups among R1 to R8 may be connected to each other to form a condensed benzene ring, each of R9 and R10 which are independent of each other, is an alkyl group which may have a substituent, a Ph group which may have a substituent, an alkenyl group which may have a substituent, or an alkynyl group which may have a substituent, each of Y1 and Y2 which are independent of each other, is a sulfur atom or a dialkylmethylene group, L1 is a penta- or hepta-methine group which may have a substituent, wherein two substituents on the penta- or hepta-methine group may be connected to each other to form a C5-7 cycloalkene ring, each of R11 to R14 which are independent from one another, is an alkyl group, each of R15 and R16 which are independent of each other, is an aryl group, which may have a substituent, L2 is a mono-, tri- or penta-methine group which may have a substituent, and X- is a counter anion, as a compd. showing absorption in near IR region, and (d) a photosensitive acid-forming agent.
- ST photosensitive compn **cyanine dye** lithog plate
- IT Photoimaging materials
(contg. **cyanine dyes** for manuf. of lithog. plates)
- IT Aminoplasts
Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(lithog. plate prepn. using photoimaging compns. contg. **cyanine dyes** and)
- IT Lithographic plates
(photoimaging compns. contg. **cyanine dyes** for manuf. of)
- IT 108961-97-3 113959-95-8 162717-41-1
162717-42-2 173474-43-6 193687-49-9
193687-50-2 193687-51-3 193687-52-4
193687-53-5 193687-54-6 193687-56-8
193687-57-9 193687-59-1 193687-60-4
193687-61-5 193687-63-7 193687-64-8,
m-Cresol-p-cresol-xylene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(lithog. plate prepn. using photoimaging compns. contg.)
- IT 313-39-3, Diphenyliodonium tetrafluoroborate 6542-67-2,
2,4,6-Tris(trichloromethyl)-s-triazine 9003-08-1, Cymel 300 9003-35-4
58109-40-3, Diphenyliodonium hexafluorophosphate 151052-44-7
193766-54-0, N 8101
RL: TEM (Technical or engineered material use); USES (Uses)
(lithog. plate prepn. using photoimaging compns. contg. **cyanine dyes** and)
- IT 113959-95-8 162717-41-1 162717-42-2
173474-43-6 193687-49-9 193687-50-2
193687-51-3 193687-52-4 193687-53-5
193687-54-6 193687-56-8 193687-57-9
193687-59-1 193687-60-4 193687-61-5
193687-63-7
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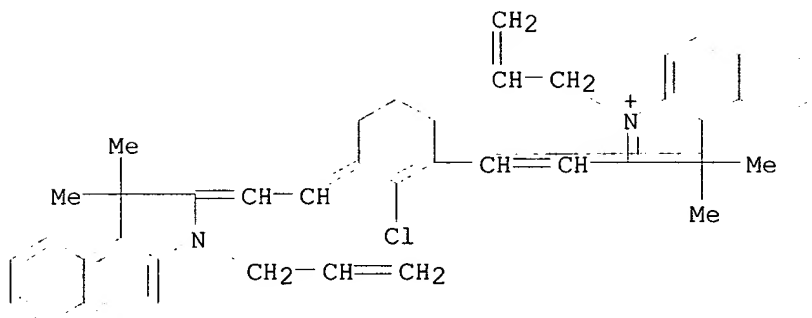
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CM 1

CRN 113959-94-7

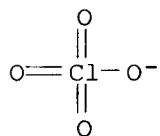
CMF C44 H44 Cl N2



CM 2

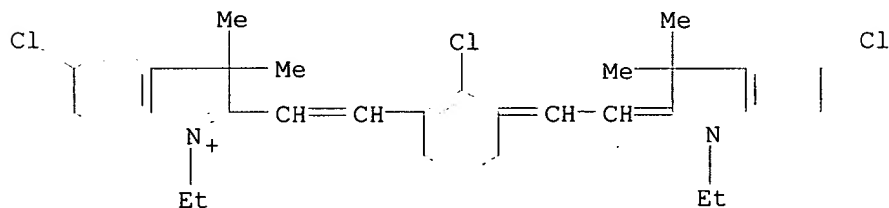
CRN 14797-73-0

CMF Cl O4



RN 162717-41-1 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[2-[2-chloro-3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, iodide (9CI) (CA-INDEX NAME)

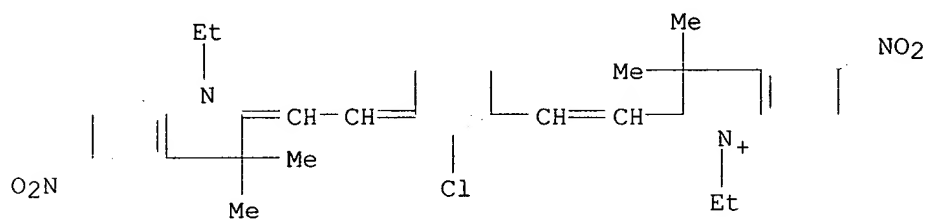


I⁻

RN 162717-42-2 HCAPLUS

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-5-nitro-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-5-nitro-, iodide (9CI) (CA INDEX NAME)



● I⁻

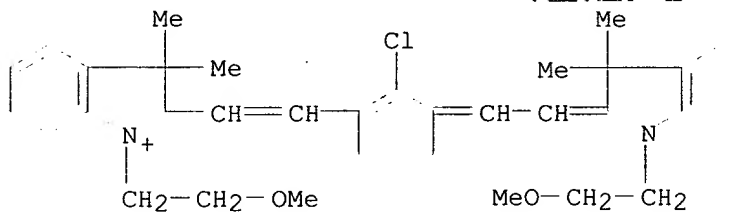
RN 173474-43-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2

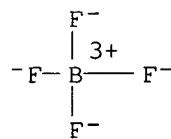


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



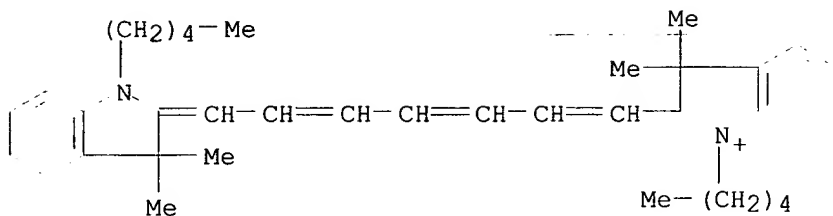
RN 193687-49-9 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-3,3-dimethyl-1-pentyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-3,3-dimethyl-1-pentyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 112407-50-8

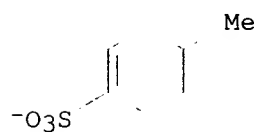
CMF C37 H49 N2



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



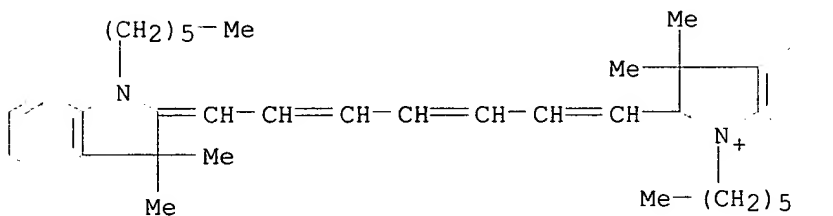
RN 193687-50-2 HCAPLUS

CN 3H-Indolium, 1-hexyl-2-[7-(1-hexyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-3,3-dimethyl-, 1-naphthalenesulfonate (9CI)
(CA INDEX NAME)

CM 1

CRN 112407-52-0

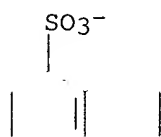
CMF C39 H53 N2



CM 2

CRN 22873-93-4

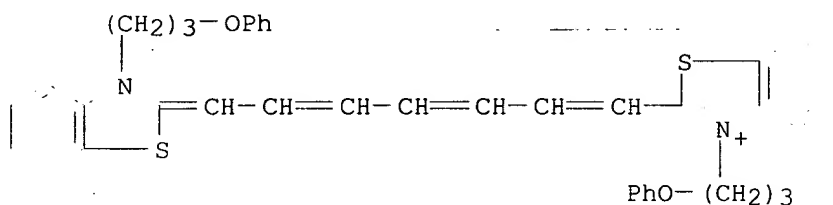
CMF C10 H7 O3 S



RN 193687-51-3 HCAPLUS
CN Benzothiazolium, 3-(3-phenoxypropyl)-2-[7-[3-(3-phenoxypropyl)-2(3H)-benzothiazolylydene]-1,3,5-heptatrienyl]-, 1-naphthalenesulfonate (9CI)
(CA INDEX NAME)

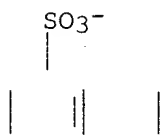
CM 1

CRN 144230-79-5
CMF C39 H37 N2 O2 S2



CM 2

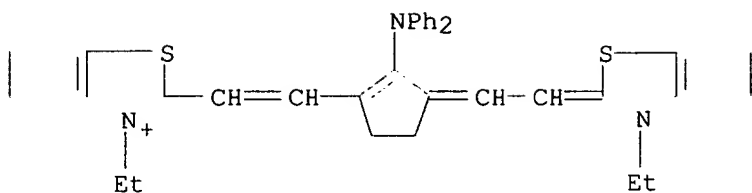
CRN 22873-93-4
CMF C10 H7 O3 S



RN 193687-52-4 HCAPLUS
CN Benzothiazolium, 2-[2-[2-(diphenylamino)-3-[(3-ethyl-2(3H)-benzothiazolylydene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-3-ethyl-, 1-naphthalenesulfonate (9CI) (CA INDEX NAME)

CM 1

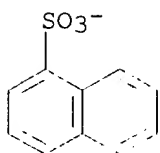
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CMF C39 H36 N3 S2



CM 2

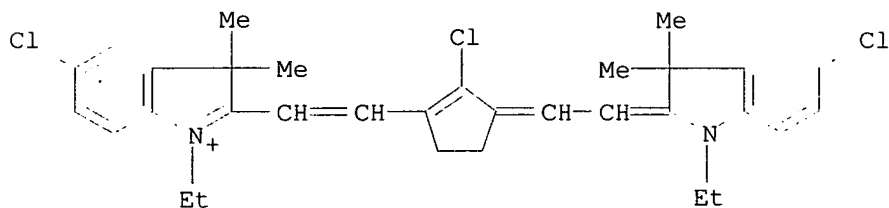
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CMF C10 H7 O3 S



RN 193687-53-5 HCAPLUS

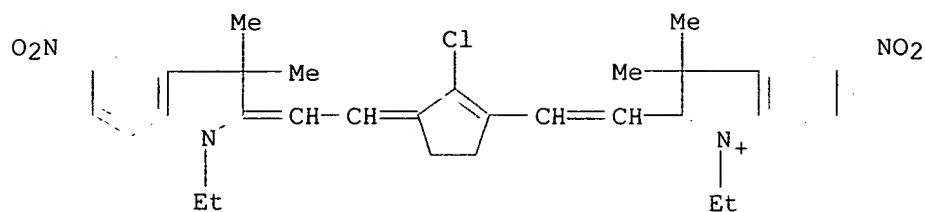
CN 3H-Indolium, 5-chloro-2-[2-[2-chloro-3-[(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-, iodide (9CI) (CA INDEX NAME)



● I-

RN 193687-54-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1-ethyl-1,3-dihydro-3,3-dimethyl-5-nitro-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-5-nitro-, iodide (9CI) (CA INDEX NAME)

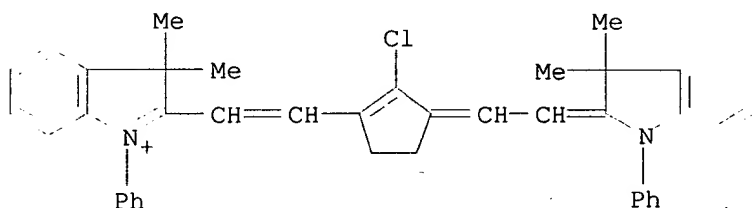


● I⁻

RN 193687-56-8 HCAPLUS
 CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-3,3-dimethyl-1-phenyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-3,3-dimethyl-1-phenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 193687-55-7
 CMF C41 H38 Cl N2

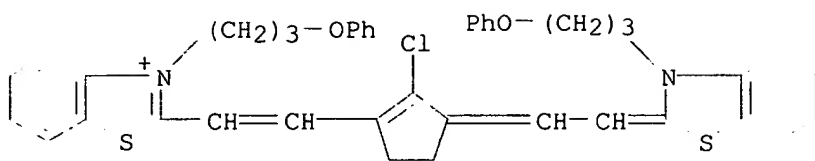


CM 2

CRN 16722-51-3
 CMF C7 H7 O3 S



RN 193687-57-9 HCAPLUS
 CN Benzothiazolium, 2-[2-[2-chloro-3-[[3-(3-phenoxypropyl)-2(3H)-benzothiazolylidene]ethylidene]-1-cyclopenten-1-yl]ethenyl]-3-(3-phenoxypropyl)-, bromide (9CI) (CA INDEX NAME)

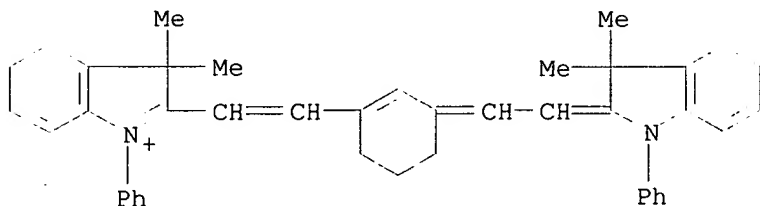


● Br⁻

RN 193687-59-1 HCAPLUS
 CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-3,3-dimethyl-1-phenyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-phenyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

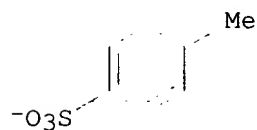
CM 1

CRN 193687-58-0
 CMF C42 H41 N2

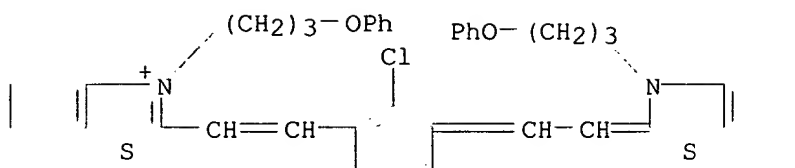


CM 2

CRN 16722-51-3
 CMF C7 H7 O3 S



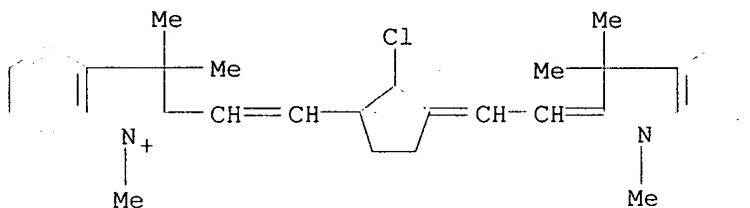
RN 193687-60-4 HCAPLUS
 CN Benzothiazolium, 2-[2-[2-chloro-3-[[3-(3-phenoxypropyl)-2(3H)-benzothiazolylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-(3-phenoxypropyl)-, bromide (9CI) (CA INDEX NAME)

● Br⁻

RN 193687-61-5 HCAPLUS
 CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

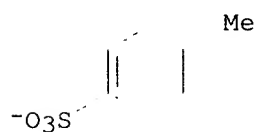
CM 1

CRN 69415-29-8
 CMF C31 H34 Cl N2



CM 2

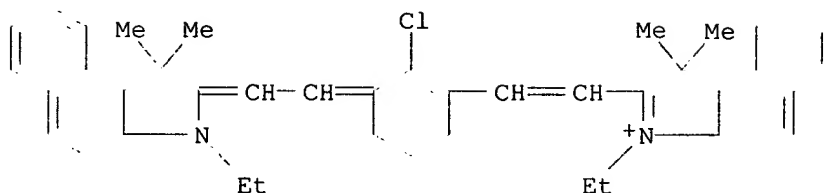
CRN 16722-51-3
 CMF C7 H7 O3 S



RN 193687-63-7 HCAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-1,1-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 193687-62-6
 CMF C42 H44 Cl N2

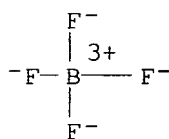


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



L18 ANSWER 28 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:490757 HCAPLUS

DN 127:142845

TI Image-forming material for presensitized lithographic plate and image forming method

IN Hirai, Katsura; Kudo, Shinji; Kizu, Noriyuki

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-039

ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09171254	A2	19970630	JP 1996-268640	19961009
	US 6391512	B1	20020521	US 1996-723457	19961015
PRAI	JP 1995-272491	A	19951020		

AB The title material comprises a support coated with a photosensitive layer contg. a compd. generating an acid upon active ray irradiation, a compd. having a group acid-decomposable bond, and an IR absorbent. The acid-decomposable compd. may have (CH₂CH₂O)_n (n = 2-5) group. The material is imagewise exposed by using visible light of wavelength 700 nm or IR rays followed by removing the exposed area with an alk. developing soln. to form an image. The material shows high sensitivity toward IR rays, good developability, and storage stability.

ST presensitized lithog plate acid generator; acid decomposable compd polyether lithog plate; IR absorbent **cyanine dye** lithog plate

IT Polyethers, preparation

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(image forming material contg. acid generator, acid-decomposable compd., and IR absorbent for lithog. plate)

IT Lithographic plates
(presensitized; image forming material contg. acid generator, acid-decomposable compd., and IR absorbent for lithog. plate)

IT 3443-85-4 3599-32-4 17695-32-8 18300-31-7 20682-18-2
53655-17-7 65767-27-3 72939-79-8 92177-65-6
108961-97-3 111792-86-0 113541-11-0 115970-68-8
141714-63-8 173474-43-6 193208-76-3
193208-78-5 193208-79-6 193208-81-0
193208-82-1
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(image forming material contg. acid generator, acid-decomposable compd., and IR absorbent for lithog. plate)

IT 28725-26-0P, Dichlorodimethylsilane-hydroquinone copolymer, sru
30281-72-2P, Dichlorodimethylsilane-hydroquinone copolymer 115815-82-2P
117646-94-3P, 1,1-Dimethoxycyclohexane-triethylene glycol copolymer
117647-26-4P, 1,1-Dimethoxycyclohexane-triethylene glycol copolymer, sru
193208-62-7P, 1,1-Dimethoxycyclohexane-ethylene glycol copolymer
193208-63-8P, 1,1-Dimethoxycyclohexane-ethylene glycol copolymer, sru
193208-64-9P, 1,1-Dimethoxycyclohexane-tetraethylene glycol copolymer
193208-65-0P, 1,1-Dimethoxycyclohexane-tetraethylene glycol copolymer, sru
193208-66-1P, 1,1-Dimethoxycyclohexane-diethylene glycol copolymer
193208-67-2P, 1,1-Dimethoxycyclohexane-diethylene glycol copolymer, sru
193208-68-3P, 1,1-Dimethoxycyclohexane-pentaethylene glycol copolymer
193208-69-4P 193208-70-7P, 1,1-Dimethoxycyclohexane-hexaethylene glycol copolymer 193208-71-8P, 1,1-Dimethoxycyclohexane-hexaethylene glycol copolymer, sru 193208-72-9P, Benzaldehyde dimethyl acetal-ethylene glycol copolymer 193208-73-0P, Benzaldehyde dimethyl acetal-ethylene glycol copolymer, sru
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(image forming material contg. acid generator, acid-decomposable compd., and IR absorbent for lithog. plate)

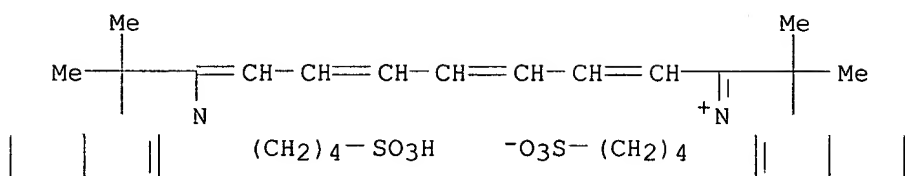
IT 3584-23-4 3712-60-5 6542-67-2 42573-57-9 57835-99-1 58109-40-3, Diphenyliodonium hexafluorophosphate 69432-40-2 93641-24-8
160509-79-5 193208-74-1
RL: DEV (Device component use); USES (Uses)
(photo-acid generator; image forming material contg. acid generator, acid-decomposable compd., and IR absorbent for lithog. plate)

IT 122-99-6 933-40-4, 1,1-Dimethoxycyclohexane
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of polyether acid decomposable compd.)

IT 3599-32-4 20682-18-2 53655-17-7
92177-65-6 115970-68-8 141714-63-8
173474-43-6 193208-76-3 193208-78-5
193208-79-6 193208-81-0 193208-82-1
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(image forming material contg. acid generator, acid-decomposable compd., and IR absorbent for lithog. plate)

RN 3599-32-4 HCAPLUS

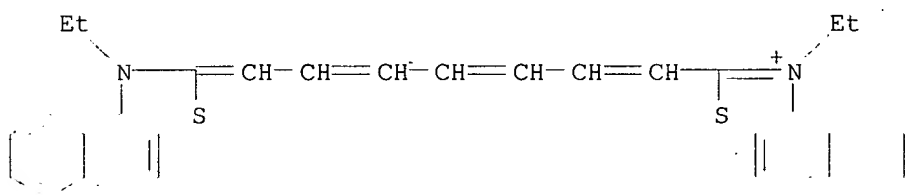
CN 1H-Benz[e]indolium, 2-[7-[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrienyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 20682-18-2 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-ethyl-2-[7-(1-ethylnaphtho[1,2-d]thiazol-2(1H)-ylidene)-1,3,5-heptatrienyl]-, iodide (9CI) (CA INDEX NAME)



● I⁻

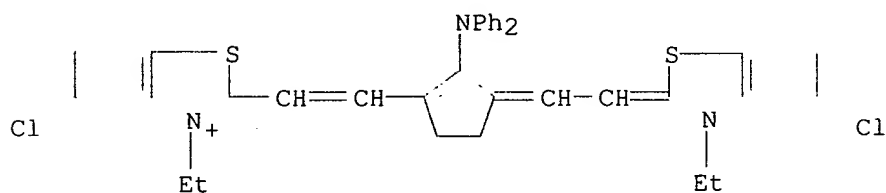
RN 53655-17-7 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[3-[(5-chloro-3-ethyl-2(3H)-benzothiazolylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-3-ethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 53655-16-6

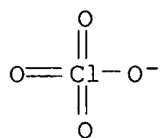
CMF C39 H34 Cl2 N3 S2



CM 2

CRN 14797-73-0

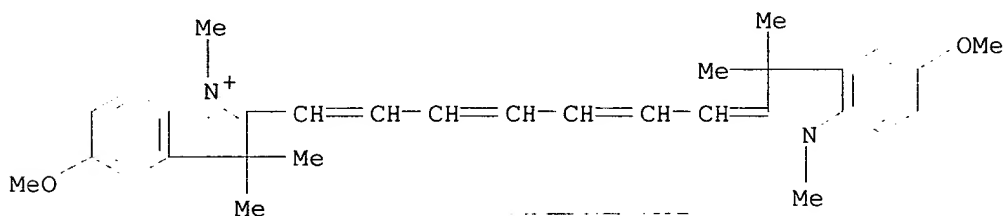
CMF Cl O4



RN 92177-65-6 HCAPLUS
 CN 3H-Indolium, 2-[7-(1,3-dihydro-5-methoxy-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-5-methoxy-1,3,3-trimethyl-, perchlorate (9CI)
 (CA INDEX NAME)

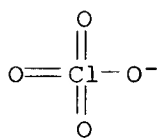
CM 1

CRN 92177-64-5
 CMF C31 H37 N2 O2

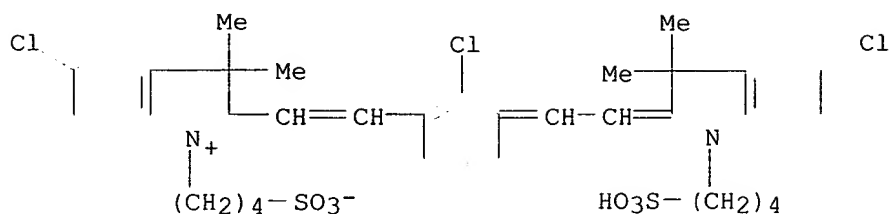


CM 2

CRN 14797-73-0
 CMF C1 O4



RN 115970-68-8 HCAPLUS
 CN 3H-Indolium, 5-chloro-2-[2-[2-chloro-3-[[5-chloro-1,3-dihydro-3,3-dimethyl-1-(4-sulfoethyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfoethyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)

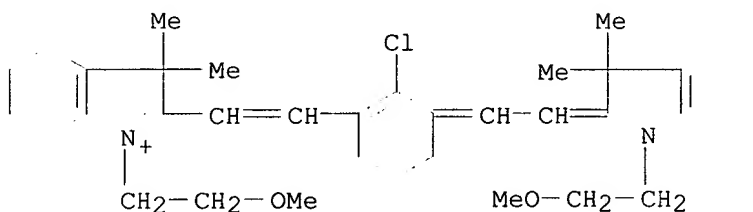


● Na

RN 141714-63-8 HCAPLUS
 CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-methoxyethyl)-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

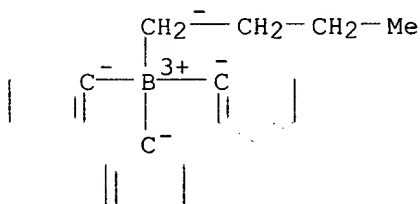
CM 1

CRN 102185-06-8
 CMF C36 H44 Cl N2 O2



CM 2

CRN 47252-39-1
 CMF C22 H24 B
 CCI CCS
 CDES 7:T-4



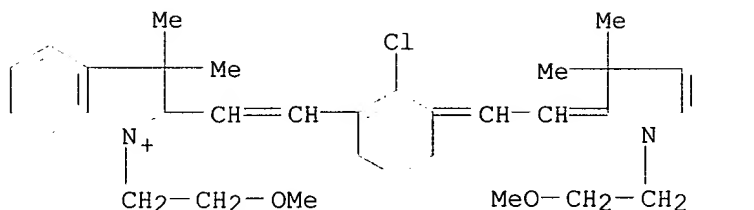
RN 173474-43-6 HCAPLUS
 CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-

methoxyethyl)-3,3-dimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2

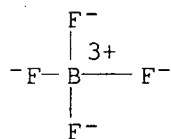


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



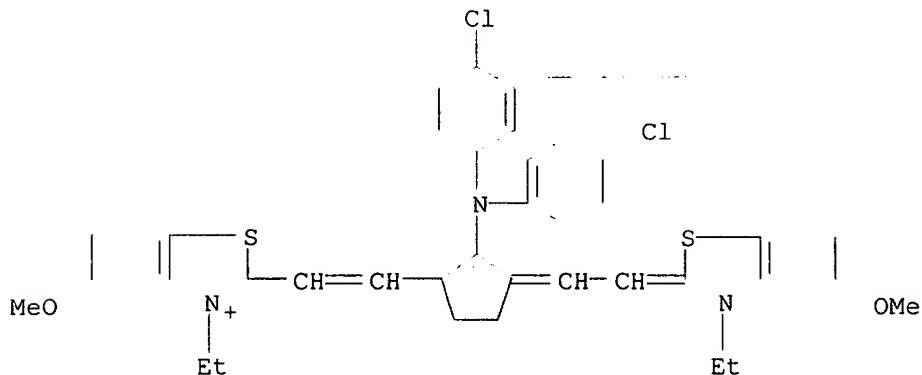
RN 193208-76-3 HCAPLUS

CN Benzothiazolium, 2-[2-[2-[bis(4-chlorophenyl)amino]-3-[(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-3-ethyl-5-methoxy-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 193208-75-2

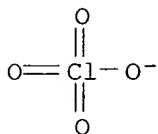
CMF C41 H38 Cl2 N3 O2 S2



CM 2

CRN 14797-73-0

CMF Cl O4



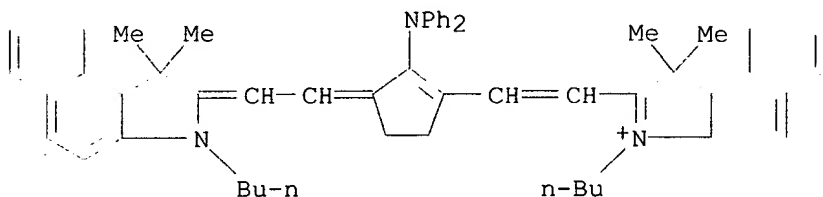
RN 193208-78-5 HCAPLUS

CN 1H-Benz[e]indolium, 3-butyl-2-[2-[3-[(3-butyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 193208-77-4

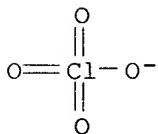
CMF C57 H60 N3



CM 2

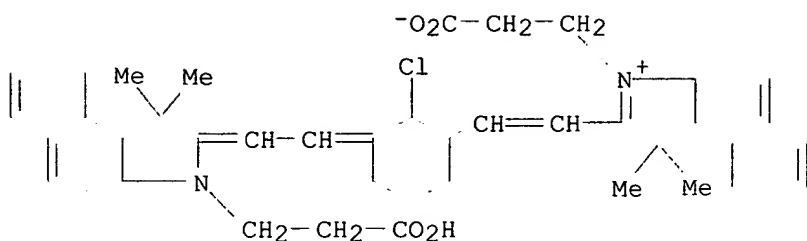
CRN 14797-73-0

CMF Cl O4



RN 193208-79-6 HCAPLUS

CN 1H-Benz[e]indolium, 3-(2-carboxyethyl)-2-[2-[3-[[3-(2-carboxyethyl)-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, inner salt (9CI) (CA INDEX NAME)



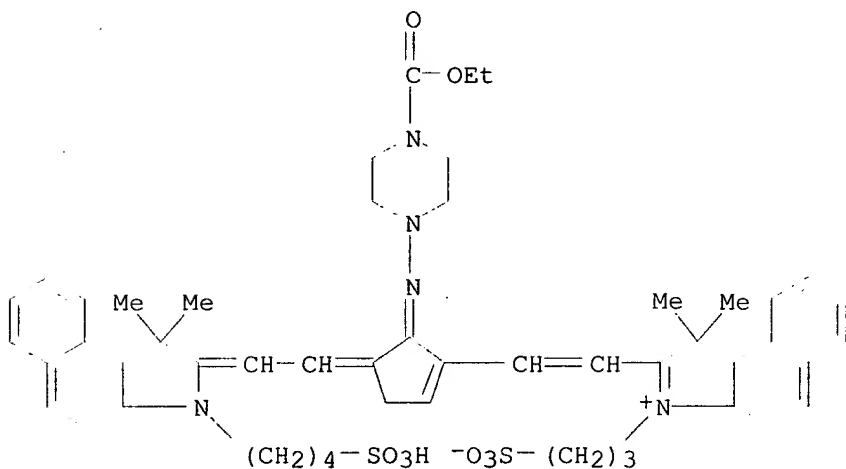
RN 193208-81-0 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[4-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-5-[[4-(ethoxycarbonyl)-1-piperazinyl]imino]-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI)
(CA INDEX NAME)

CM 1

CRN 193208-80-9

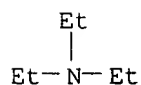
CMF C51 H59 N5 O8 S2



CM 2

CRN 121-44-8

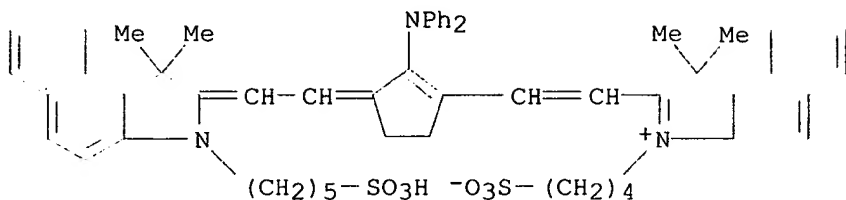
CMF C6 H15 N



RN 193208-82-1 HCAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-3-(5-sulfopentyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(diphenylamino)-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, monosodium salt

(9CI) (CA INDEX NAME)



● Na

L18 ANSWER 29 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:439875 HCAPLUS

DN 127:58019

TI Electrophotographic lithographic plate for laser beam

IN Katayama, Koichi; Nishigori, Yoshiharu; Nakano, Shiro

PA Oji Paper Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

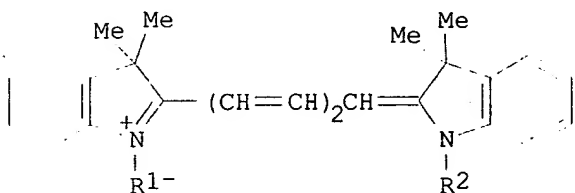
IC ICM G03G005-06

ICS G03G005-06; G03G005-05; G03G005-09

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09138514	A2	19970527	JP 1995-295334	19951114
OS	MARPAT 127:58019				
GI					



I

AB The title material, comprising a water-resistant support coated with an intermediate layer and then with a photoconductive layer based on a mixt. of a photoconductive pigment and an insulating binder, contains .gtoreq.1 dye I (R1 = CH2CO2, C2H4CO2, C3H6CO2; R2 = CH2CO2H, C2H4CO2H, C3H6CO2H) and tetrabromophenol blue in the photoconductive layer and has sensitivity toward semiconductor laser beams of oscillation wavelength 635 nm. The material shows high sensitivity toward semiconductor laser beams of oscillation wavelength near 635 nm.

ST electrophotog lithog plate **cyanine dye**;

tetrabromophenol blue electrophotog lithog plate

IT Electrophotographic photoconductors (photoreceptors)

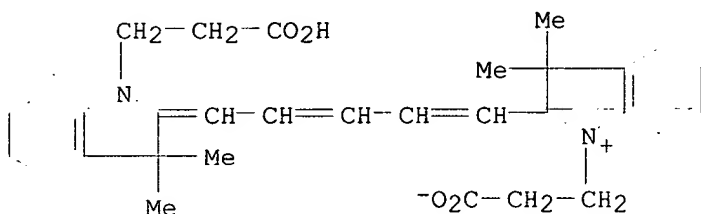
Lithographic plates

(electrophotog. lithog. plate contg. **cyanine dye**
and tetrabromophenol blue)IT 4430-25-5, Tetrabromophenol blue 158829-52-8 190853-33-9
190853-34-0RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)(electrophotog. lithog. plate contg.
cyanine dye and tetrabromophenol blue)

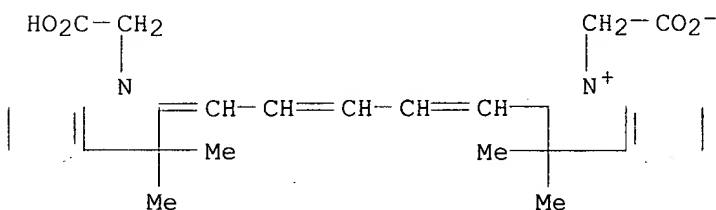
IT 158829-52-8 190853-33-9 190853-34-0

RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)(electrophotog. lithog. plate contg.
cyanine dye and tetrabromophenol blue)

RN 158829-52-8 HCAPLUS

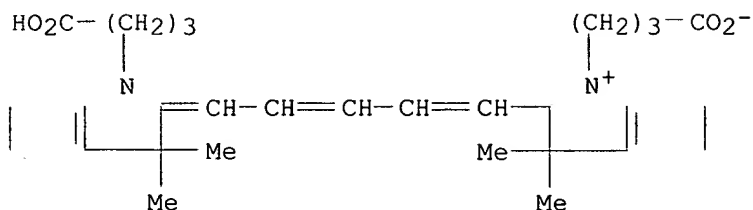
CN 3H-Indolium, 1-(2-carboxyethyl)-2-[5-[1-(2-carboxyethyl)-1,3-dihydro-3,3-
dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-, inner salt
(9CI) (CA INDEX NAME)

RN 190853-33-9 HCAPLUS

CN 3H-Indolium, 1-(carboxymethyl)-2-[5-[1-(carboxymethyl)-1,3-dihydro-3,3-
dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-, inner salt
(9CI) (CA INDEX NAME)

RN 190853-34-0 HCAPLUS

CN 3H-Indolium, 1-(3-carboxypropyl)-2-[5-[1-(3-carboxypropyl)-1,3-dihydro-3,3-
dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-, inner salt
(9CI) (CA INDEX NAME)



L18 ANSWER 30 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:265561 HCAPLUS

DN 126:257074

TI Water-less lithographic plates

IN Bennett, Peter Andrew Reath; Smith, Carole-Anne

PA Horsell Graphic Images Limited, UK; Bennett, Peter Andrew Reath; Smith, Carole-Anne

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM G03F007-004

ICS G03F007-075

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9707430	A1	19970227	WO 1996-GB1974	19960813
	W: AU, BR, CA, CN, GB, JP, MX, NZ, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2229536	AA	19970227	CA 1996-2229536	19960813
	AU 9667475	A1	19970312	AU 1996-67475	19960813
	EP 845116	A1	19980603	EP 1996-927771	19960813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE				
	CN 1192811	A	19980909	CN 1996-196256	19960813
	JP 11119416	A2	19990430	JP 1998-75163	19960813
	BR 9610224	A	19991221	BR 1996-10224	19960813
	JP 2000513455	T2	20001010	JP 1997-509042	19960813
	US 6187511	B1	20010213	US 1998-11436	19980211
PRAI	GB 1995-16694	A	19950815		
	JP 1997-509042	A3	19960813		
	WO 1996-GB1974	W	19960813		

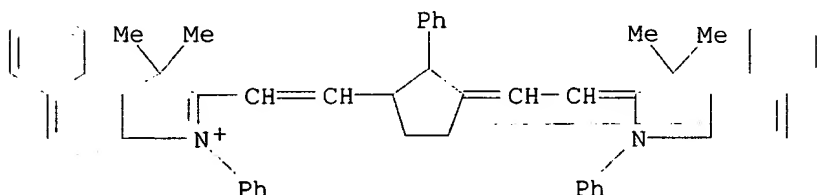
AB There is described a method of prepg. a water-less lithog. plate which comprises a support having an oleophilic surface; there being coated on the support a mixt. which comprises as one component an ink-repellent and water-repellent **polymer** or a mixt. of such **polymers** or a **polymer** precursor, and as the other essential component of the mixt. a photosensitive or heat sensitive compn. selected from (a) an org. **solvent** sol. diazo compn. which is either light or heat sensitive, (b) a photopolymer together with a sensitizer which is either light or heat sensitive or (c) a mixt. of a free-radically polymerizable ethylenically unsatd. compd. or compds. and a photoinitiator which is either heat or light sensitive, the ratio of ink-repellent **polymer** to photosensitive or heat sensitive compn. (a), (b), or (c) in the mixt. being from 20-80 ink-repellent **polymer** to 80-20 photosensitive or heat sensitive compn. by wt., imagewise acting on exposing the coating process mixt., developing the acted on mixt. with the appropriate

- developing soln. depending on the compn. (a), (b), (c) used to remove the compn. and the water-repellent **polymer** in the unacted-on areas to reveal the oleophilic surface of the support in the unacted-on areas of the plate and leaving the acted on areas of the plate.
- ST water less lithog plate; ink repellent **polymer** lithog plate
- IT Polysiloxanes, processes
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Syl-off 7920; contained in coating compn. for lithog. plate)
- IT Polysiloxanes, processes
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(di-Me; contained in coating compn. for lithog. plate)
- IT Lithographic plates
(having oleophilic surface coated with mixt. of ink-repellent and water-repellent **polymers** and other components)
- IT 188596-59-0, Syl-off 7922
RL: CAT (Catalyst use); USES (Uses)
(catalyst; curing agent contained in coating compn. for lithog. plate)
- IT 9016-00-6, Poly(dimethylsiloxane) 9016-00-6D, Polydimethyl siloxane, vinyl dimethyl-terminated 25068-38-6, Epikote 1004 31900-57-9, Poly(dimethylsiloxane) 31900-57-9D, Polydimethyl siloxane, vinyl dimethyl-terminated 79586-36-0, Asahiguard A.G. 550 153743-82-9, DSO 19 156118-35-3, Dimethyl silanediol-methyl silandiol copolymer 169314-57-2, Zonyl 8070 188596-57-8, RO-C OC15
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(contained in coating compn. for lithog. plate)
- IT 492-22-8, Thioxanthone **188435-88-3**
RL: MOA (Modifier or additive use); USES (Uses)
(sensitizer contained in coating compn. for lithog. plate)
- IT **188435-88-3**
RL: MOA (Modifier or additive use); USES (Uses)
(sensitizer contained in coating compn. for lithog. plate)
- RN 188435-88-3 HCAPLUS
- CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1-dimethyl-3-phenyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-phenylcyclopentyl]ethenyl]-1,1-dimethyl-3-phenyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 188435-87-2

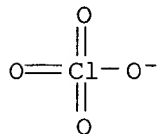
CMF C55 H49 N2



CM 2

CRN 14797-73-0

CMF C1 O4



L18 ANSWER 31 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:461964 HCAPLUS

DN 125:127860

TI Photosensitive material for lithographic plates and method for making the plates

IN Maehashi, Tatsuichi; Matsumoto, Shinji; Kuroki, Takaaki; Kawakami, Sota

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-028

ICS G03F007-00; G03F007-027; G03F007-029; G03F007-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08114916	A2	19960507	JP 1994-247968	19941013
AB	The photosensitive material comprises a hydrophilic support having thereon a photosensitive layer contg. a compd. having .gtoreq.1 ethylenic unsatd. bond, a binder, and a photopolymn. initiator and a protective layer and the photopolymn. initiator at least contains a salt of a cationic dye with an organoboron compd. anion and the other B salts at mol. ratio 1:2-5. Also claimed is a method for making lithog. plates by imagewise exposure of a photosensitive layer to laser followed by removal of the unexposed area of the protective layer and the photosensitive layer by dissoln. The cationic dye may be a near-IR-absorbing R1R2C+(CH:CR5)m(CH:CH)nCH:CR3R4 X- [R1-5 = H, (un)substituted H, alkyl, cycloalkyl, aryl, aralkyl, styryl, heterocyclyl; m = 0, 1; n = 0-2; X- = B compd. anion]. The photosensitive material shows good storage stability.				
ST	presensitized lithog plate laser sensitive; photosensitive compn presensitized lithog plate; cationic dye presensitized lithog plate; polymethine dye presensitized lithog plate				
IT	Dyes Dyes, cyanine (near-IR-absorbing, near-IR-sensitive photosensitive compn. for lithog. plates contg. cationic dye organoboron salts and B salts as photopolymn. initiators)				
IT	Polymerization catalysts (photochem., near-IR-sensitive photosensitive compn. for lithog. plates contg. cationic dye organoboron salts and B salts as photopolymn. initiators)				
IT	Lithographic plates (presensitized, near-IR-sensitive photosensitive compn. for lithog. plates contg. cationic dye organoboron salts and B salts as photopolymn. initiators)				
IT	65859-86-1, Lithium butyltriphenylborate 120307-06-4, Tetrabutylammonium butyltriphenylborate 141714-54-7 141714-63-8 153146-33-9,				

Tetrabutylphosphonium butyltriphenylborate 157075-01-9 179128-74-6
179268-23-6

RL: CAT (Catalyst use); USES (Uses)

(near-IR-sensitive photosensitive compn. for lithog.
plates contg. cationic dye organoboron salts and B salts as
photopolymer. initiators)

IT 26351-99-5 29570-58-9, Dipentaerythritol hexaacrylate

RL: TEM (Technical or engineered material use); USES (Uses)

(near-IR-sensitive photosensitive compn. for lithog. plates contg.
cationic dye organoboron salts and B salts as photopolymer. initiators)

IT 141714-63-8

RL: CAT (Catalyst use); USES (Uses)

(near-IR-sensitive photosensitive compn. for lithog.
plates contg. cationic dye organoboron salts and B salts as
photopolymer. initiators)

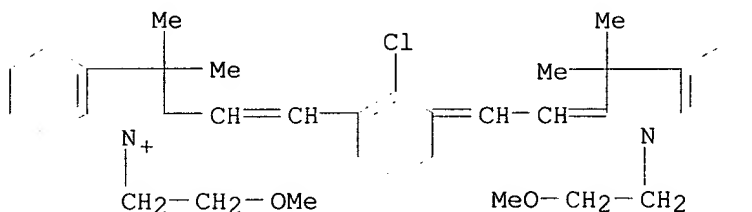
RN 141714-63-8 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-
dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-
methoxyethyl)-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-) (9CI) (CA
INDEX NAME)

CM 1

CRN 102185-06-8

CMF C36 H44 Cl N2 O2



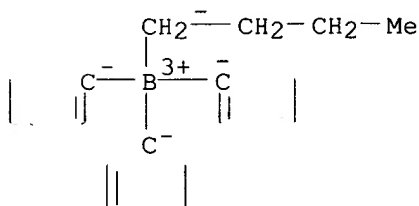
CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS

CDES 7:T-4



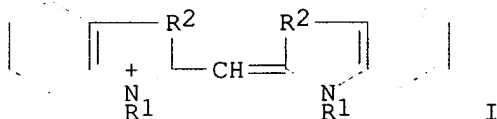
L18 ANSWER 32 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 1995:865152 HCAPLUS

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

DN 124:18451
 TI Photosensitive composition and lithographic printing plate
 IN Fukumuro, Iku; Takagi, Koji; Matsubara, Shinichi; Sasaki, Mitsuru; Matsuo, Fumyuki
 PA Konishiroku Photo Ind, Japan; Mitsubishi Kagaku Kk
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-004
 ICS G03F007-022; G03F007-039
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07209858	A2	19950811	JP 1994-18958	19940119
OS	MARPAT 124:18451				
GI					



AB The compn. contains an alkali-sol. polymer, a quinonediazide compd., a **cyanine dye**, and an alkyl borate. The lithog. plate has a photosensitive layer comprising the compn. The **cyanine dye** may be I (R1 = lower alkyl; R2 = O, S, lower alkyl). The plate shows high sensitivity and decoloration properties.

ST photosensitive polymer **cyanine dye**; borate alkyl photosensitive polymer; lithog printing plate photosensitive polymer

IT **Dyes, cyanine**
 Lithographic plates
 (photosensitive polymer compn. contg. **cyanine dye** and alkyl borate and lithog. printing plate with high sensitivity)

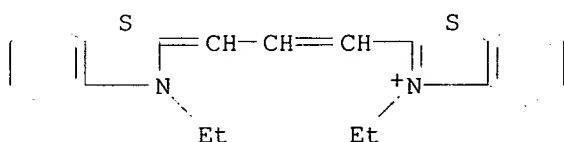
IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (novolak, photosensitive polymer compn. contg. **cyanine dye** and alkyl borate and lithog. printing plate with high sensitivity)

IT Resists
 (photo-, photosensitive polymer compn. contg. **cyanine dye** and alkyl borate and lithog. printing plate with high sensitivity)

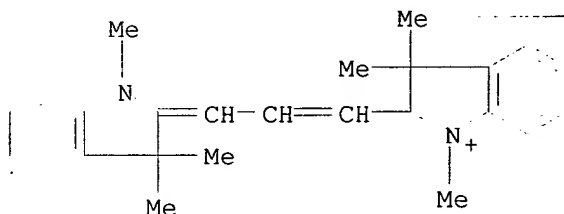
IT 18403-49-1 20766-56-7 37069-75-3 106433-85-6
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (photosensitive polymer compn. contg. **cyanine dye** and alkyl borate and lithog. printing plate with high sensitivity)

IT 69777-38-4P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photosensitive polymer compn. contg. **cyanine dye**)

and alkyl borate and lithog. printing plate with high sensitivity)
 IT 35464-74-5 68584-99-6
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photosensitive polymer compn. contg. **cyanine dye**
 and alkyl borate and lithog. printing plate with high sensitivity)
 IT 18403-49-1 20766-56-7
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material
 use); USES (Uses)
 (photosensitive polymer compn. contg. **cyanine dye**
 and alkyl borate and lithog. printing plate with
 high sensitivity)
 RN 18403-49-1 HCAPLUS
 CN Benzothiazolium, 3-ethyl-2-[3-(3-ethyl-2(3H)-benzothiazolylidene)-1-
 propenyl]- (9CI) (CA INDEX NAME)



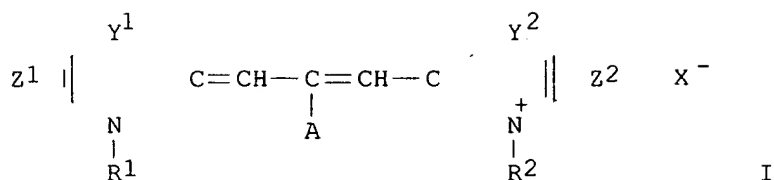
RN 20766-56-7 HCAPLUS
 CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-
 propenyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L18 ANSWER 33 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1995:370877 HCAPLUS
 DN 122:201324
 TI Lithographic printing materials
 IN Takagi, Yoshihiro
 PA Fuji Photo Film Co Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-07
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06332182	A2	19941202	JP 1993-119909	19930521
OS	MARPAT 122:201324				
GI					



AB The materials comprise Ag halide layers contg. .ltoreq.97 mol% Ag chloride and contain cationic carbocyanine dyes. Preferably, the dyes are I (A = C1-4 alkyl; R1-2 = alkyl; Y1-2 = O, S, Se; Z1-2 = condensed benzene, naphthalene; X- = anion; n = 0, 1). The materials have high sensitivity against laser, and give printing materials with high contrast.

ST lithog printing plate silver halide; cationic carbocyanine dye lithog plate

IT **Dyes, cyanine**

(silver halide lithog. printing plates contg. cationic carbocyanine dyes)

IT Lithographic plates

(silver halide; silver halide lithog. printing plates contg. cationic carbocyanine dyes)

IT 6099-48-5 13085-74-0 **38248-35-0 120548-20-1**

135806-53-0 161717-46-0 161717-48-2 161717-49-3 **161717-51-7**

161717-53-9 161717-54-0

RL: TEM (Technical or engineered material use); USES (Uses)

(silver halide **lithog.** printing **plates** contg.

cationic carbocyanine dyes)

IT **38248-35-0 120548-20-1 161717-51-7**

161717-53-9 161717-54-0

RL: TEM (Technical or engineered material use); USES (Uses)

(silver halide **lithog.** printing **plates** contg.

cationic carbocyanine dyes)

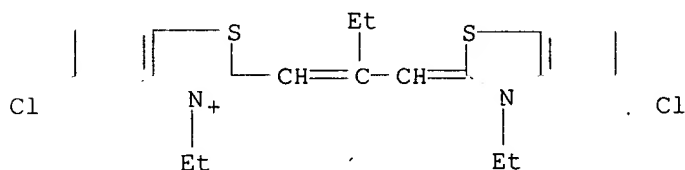
RN 38248-35-0 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-3-ethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 24690-67-3

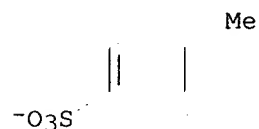
CMF C23 H23 Cl2 N2 S2



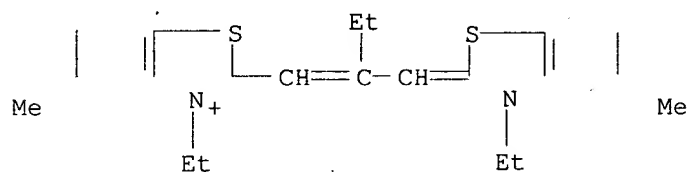
CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



RN 120548-20-1 HCAPLUS
 CN Benzothiazolium, 3-ethyl-2-[2-[(3-ethyl-5-methyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methyl-, bromide (9CI) (CA INDEX NAME)

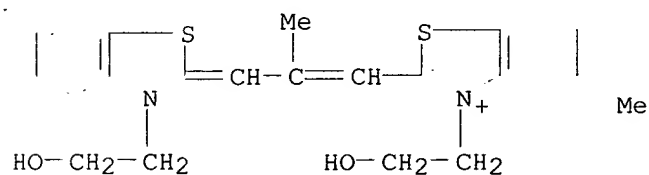


● Br⁻

RN 161717-51-7 HCAPLUS
 CN Benzothiazolium, 3-(2-hydroxyethyl)-2-[3-[3-(2-hydroxyethyl)-2(3H)-benzothiazolylidene]-2-methyl-1-propenyl]-5-methyl-, perchlorate (salt) (9CI) (CA INDEX NAME)

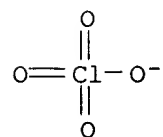
CM 1

CRN 161717-50-6
 CMF C23 H25 N2 O2 S2



CM 2

CRN 14797-73-0
 CMF Cl O4



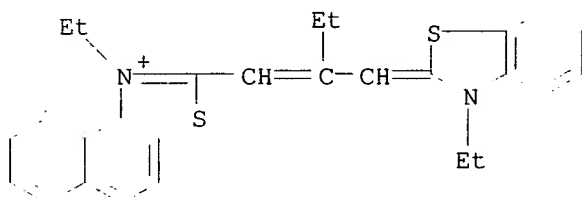
RN 161717-53-9 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-ethyl-2-[2-[(3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161717-52-8

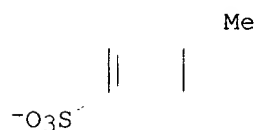
CMF C27 H27 N2 S2



CM 2

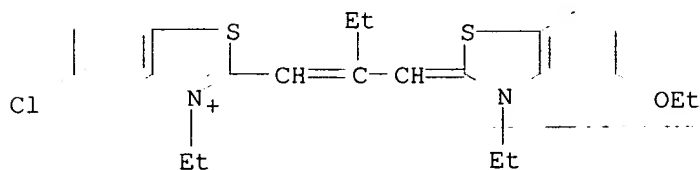
CRN 16722-51-3

CMF C7 H7 O3 S



RN 161717-54-0 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[(5-ethoxy-3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-3-ethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

L18 ANSWER 34 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:689705 HCAPLUS

DN 121:289705

TI Electrophotographic lithographic plate with high sensitivity to laser exposure

IN Yamamoto, Hideyuki; Hijikata, Kazumasa

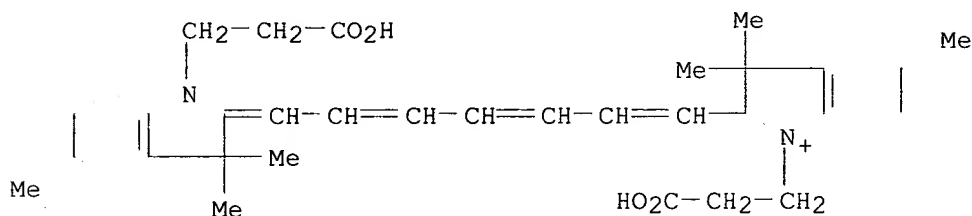
PA Iwatsu Electric Co Ltd, Japan

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

(cyanine dye for electrophotog. lithog.
plate with high sensitivity to laser exposure)

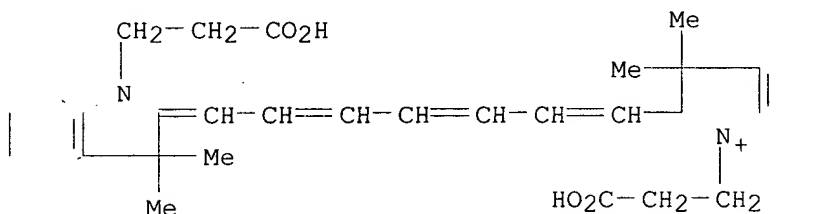
RN 158829-50-6 HCAPLUS

CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-1,3-dihydro-3,3,5-trimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3,5-trimethyl-, iodide
(9CI) (CA INDEX NAME)

● I⁻

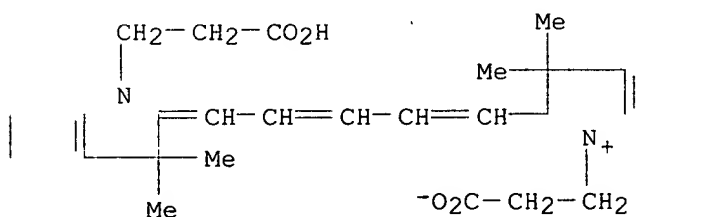
RN 158829-51-7 HCAPLUS

CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-, iodide
(9CI) (CA INDEX NAME)

● I⁻

RN 158829-52-8 HCAPLUS

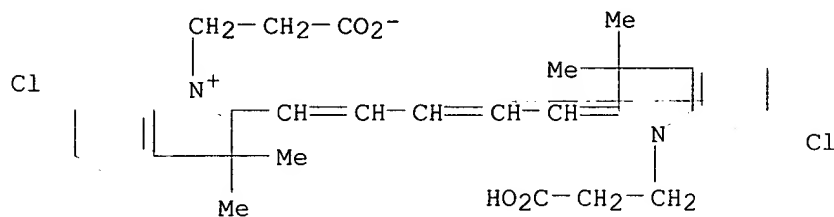
CN 3H-Indolium, 1-(2-carboxyethyl)-2-[5-[1-(2-carboxyethyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-, inner salt
(9CI) (CA INDEX NAME)



RN 158829-53-9 HCAPLUS

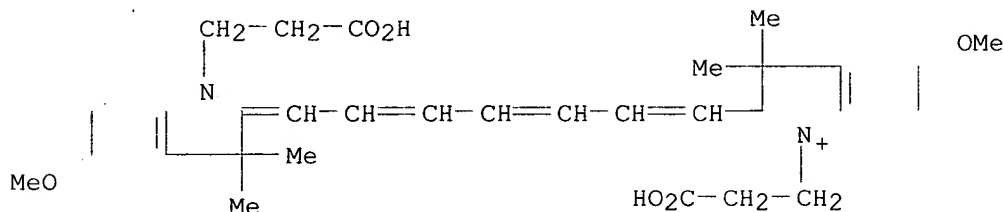
CN 3H-Indolium, 1-(2-carboxyethyl)-2-[5-[1-(2-carboxyethyl)-6-chloro-1,3-

dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadienyl]-6-chloro-3,3-dimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 158829-54-0 HCAPLUS

CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-1,3-dihydro-5-methoxy-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-methoxy-3,3-dimethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

L18 ANSWER 35 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1992:560871 HCAPLUS

DN 117:160871

TI Electrophotographic material for lithographic plate preparation

IN Yamana, Masahiro; Sato, Koji

PA Oji Paper Co., Ltd., Japan

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03G005-06

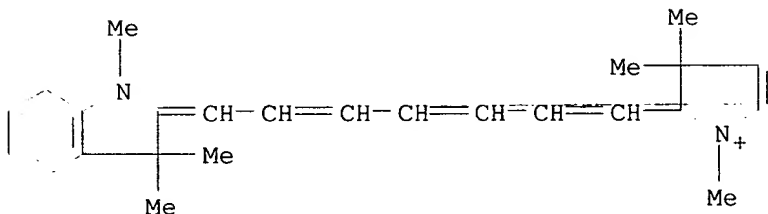
ICS G03G005-09

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 488511	A1	19920603	EP 1991-309670	19911018
	R: DE, FR, GB				
	JP 04212969	A2	19920804	JP 1991-23138	19910218
	US 5213930	A	19930525	US 1991-783439	19911028
PRAI	JP 1990-317894		19901126		
	JP 1991-23138		19910218		
OS	MARPAT 117:160871				
GI	For diagram(s), see printed CA Issue.				

- AB An electrophotog. material with enhanced sensitivity to laser beams, excellent heat resistance, and low dark decay and suited for lithog. plate prepn. comprises, on an elec. conductive, water-resistant substrate, a photosensitive layer contg. photoconductive ZnO particles, a resinous binder, and a sensitizing compn. comprising .gtoreq.1 dye represented by the formula I and .gtoreq.1 dye represented by the formula II (A1, A2 = a C5-7 polymethine group which may be substituted with .gtoreq.1 substituent; B1-4 = a divalent benzene or naphthalene group which may be substituted; X1-4 = S, Se, O, or C(CH3)2; R1-4 = C1-5 alkyl; M1, M2 = H, a metal, or an org. base group; Y, Z = an anion; m, n = 0 or 1) with the wt. ratio of I to II being 3:1 to 20:1.
- ST dye sensitizer electrophotog photoconductor lithog plate
- IT Lithographic plates
(prodn. of, electrophotog. materials contg. zinc oxide and polymethine **cyanine dye** sensitizers for)
- IT Electrophotographic photoconductors and photoreceptors
(zinc oxide, contg. polymethine **cyanine dye** sensitizers for lithog. plate prepn.)
- IT 1314-13-2, Zinc oxide, uses
RL: USES (Uses)
(electrophotog. photoreceptors contg. polymethine **cyanine dye** sensitizers and, for lithog. plate prepn.)
- IT 19764-96-6 22268-66-2 62203-27-4
95781-56-9 103090-94-4 140648-15-3
143557-60-2 143557-61-3 143557-62-4
143557-63-5 143557-64-6 143557-65-7
143557-66-8 143557-68-0
RL: USES (Uses)
(sensitizing compns. contg., for zinc oxide electrophotog. materials for lithog. plate prepn.)
- IT 19764-96-6 22268-66-2 62203-27-4
95781-56-9 103090-94-4 140648-15-3
143557-61-3 143557-62-4 143557-63-5
143557-64-6 143557-65-7 143557-66-8
143557-68-0
RL: USES (Uses)
(sensitizing compns. contg., for zinc oxide electrophotog. materials for lithog. plate prepn.)
- RN 19764-96-6 HCAPLUS
- CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



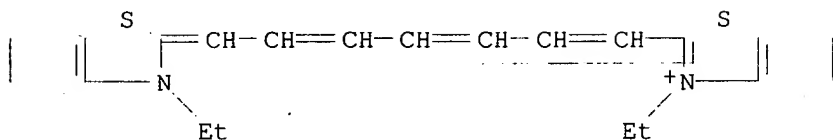
● I⁻

- RN 22268-66-2 HCAPLUS
- CN Benzothiazolium, 3-ethyl-2-[7-(3-ethyl-2(3H)-benzothiazolylidene)-1,3,5-heptatrienyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 23178-68-9

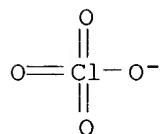
CMF C25 H25 N2 S2



CM 2

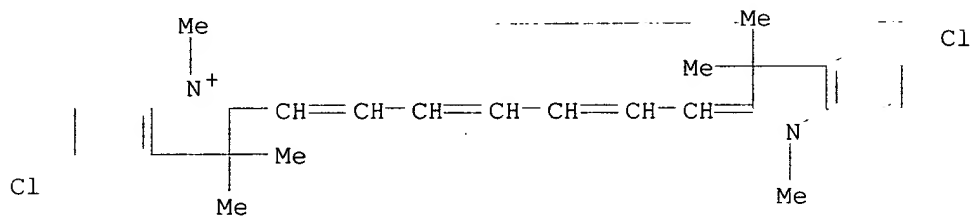
CRN 14797-73-0

CMF Cl O4



RN 62203-27-4 HCAPLUS

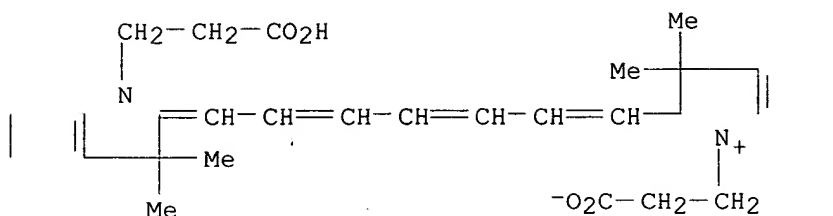
CN 3H-Indolium, 5-chloro-2-[7-(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



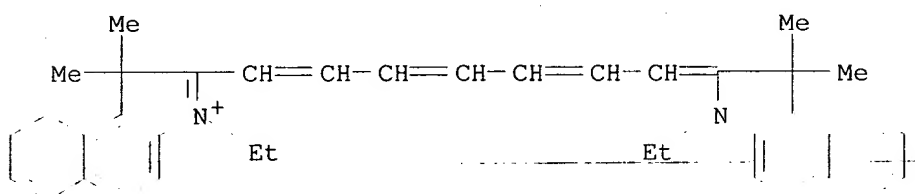
● I⁻

RN 95781-56-9 HCAPLUS

CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-, inner salt (9CI) (CA INDEX NAME)

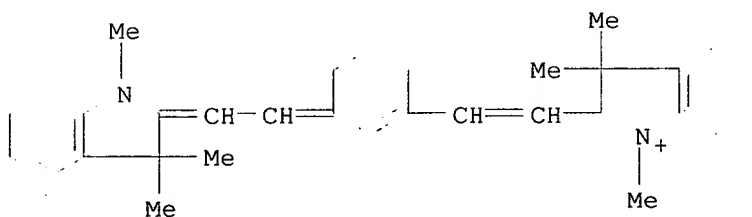


RN 103090-94-4 HCAPLUS
 CN 1H-Benz[e]indolium, 3-ethyl-2-[7-(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



● I⁻

RN 140648-15-3 HCAPLUS
 CN 3H-Indolium, 2-[2-[3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)

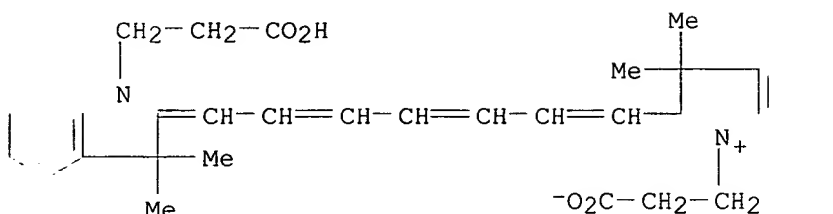


● I⁻

RN 143557-61-3 HCAPLUS
 CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

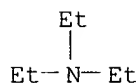
CRN 95781-56-9
 CMF C33 H36 N2 O4



CM 2

CRN 121-44-8

CMF C6 H15 N



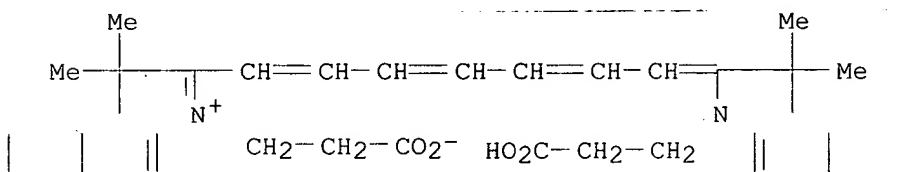
RN 143557-62-4 HCAPLUS

CN 1H-Benz[e]indolium, 3-(2-carboxyethyl)-2-[7-[3-(2-carboxyethyl)-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrienyl]-1,1-dimethyl-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 95837-47-1

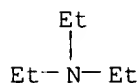
CMF C41 H40 N2 O4



CM 2

CRN 121-44-8

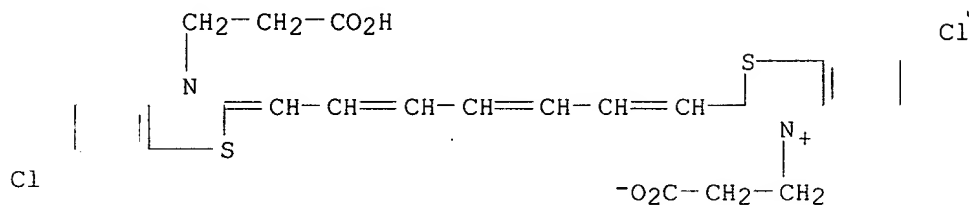
CMF C6 H15 N



RN 143557-63-5 HCAPLUS

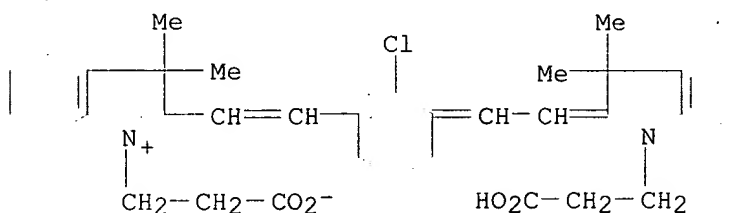
CN Benzothiazolium, 3-(2-carboxyethyl)-2-[7-[3-(2-carboxyethyl)-6-chloro-2(3H)-benzothiazolylidene]-1,3,5-heptatrienyl]-6-chloro-, inner salt,

sodium salt (9CI) (CA INDEX NAME)



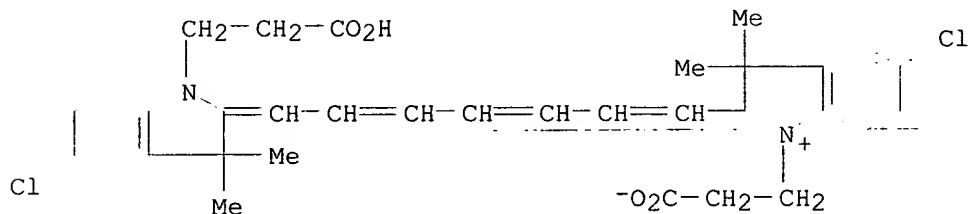
● Na

RN 143557-64-6 HCAPLUS
 CN 3H-Indolium, 1-(2-carboxyethyl)-2-[2-[3-[[1-(2-carboxyethyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

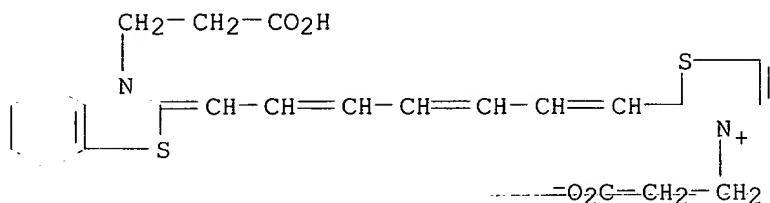
RN 143557-65-7 HCAPLUS
 CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-5-chloro-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-chloro-3,3-dimethyl-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 143557-66-8 HCAPLUS
 CN Benzothiazolium, 3-(2-carboxyethyl)-2-[7-[3-(2-carboxyethyl)-2(3H)-benzothiazolylidene]-1,3,5-heptatrienyl]-, inner salt, sodium salt (9CI)

(CA INDEX NAME)

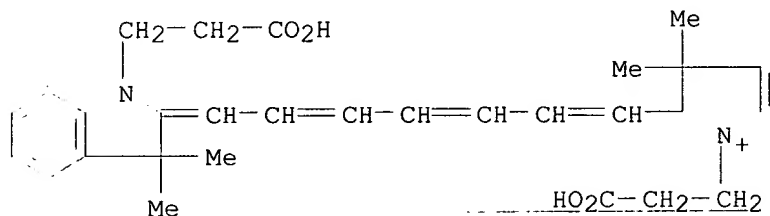


● Na

RN 143557-68-0 HCAPLUS
 CN 3H-Indolium, 1-(2-carboxyethyl)-2-[7-[1-(2-carboxyethyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-, perchlorate (9CI) (CA INDEX NAME)

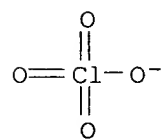
CM 1

CRN 143557-67-9
 CMF C33 H37 N2 O4



CM 2

CRN 14797-73-0
 CMF C1 O4



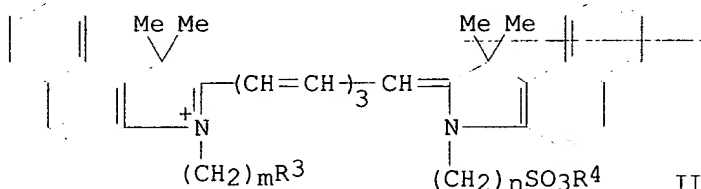
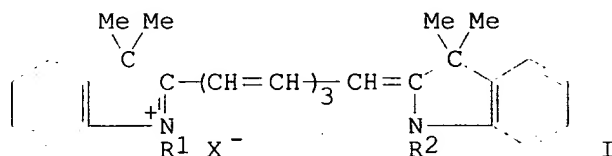
L18 ANSWER 36 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1992:417347 HCAPLUS
 DN 117:17347
 TI Electrophotographic material for lithographic plate preparation
 IN Nakano, Shiro
 PA Oji Paper Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM G03G005-09
 ICS G03G013-28
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04007557	A2	19920110	JP 1990-108838	19900426
OS	MARPAT 117:17347				
GI					



- AB In the title electrophotog. material comprising a substrate coated with a photoconductive layer consisting of a mixt. of photoconductive pigments and elec. insulating binders, the photoconductive layer contains .gtoreq.1 dye of I (R1-2 = Me, Et, alkyl; X = halo) and II (R3 = SO3-, CO2-, HPO4-; R4 = quaternary ammonium, alkali metal; m, n .gtoreq.1) and .gtoreq.1 of Co salts and Mn salts. The title material shows high sensitivity to a semiconductor laser beam and gives a lithog. plate producing clear prints without stains.
- ST electrophotog material laser lithog plate; **cyanine dye**
- IT electrophotog lithog plate; cobalt manganese salt electrophotog lithog
- IT Electrophotographic photoconductors and photoreceptors
 (contg. zinc oxide and **cyanine dyes** and cobalt and manganese salts for lithog. plate prepn.)
- IT Lithographic plates
 (electrophotog. materials contg. pigments and **cyanine dyes** for prepn. of)
- IT Naphthenic acids, compounds
 RL: PREP (Preparation)
 (manganese salts, zinc oxide electrophotog. materials contg., for lithog. plate prepn.)
- IT 1314-13-2, Sazex 2000, uses
 RL: USES (Uses)
 (electrophotog. materials contg., for lithog. plate prepn.)
- IT 19764-96-6 124351-80-0
 RL: USES (Uses)
 (sensitizer, for zinc oxide electrophotog. materials for lithog. plate prepn.)
- IT 7646-79-9, Cobalt chloride, uses 7789-43-7, Cobalt bromide 11132-78-8,

Manganese chloride

RL: USES (Uses)

(zinc oxide electrophotog. materials contg., for lithog. plate prepn.)

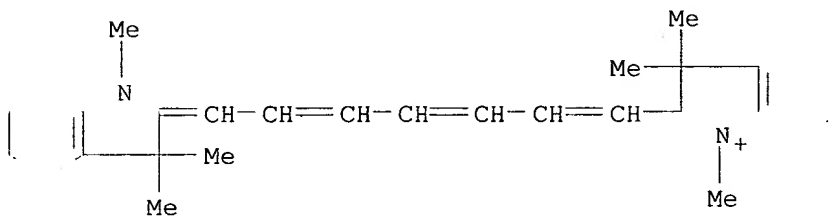
IT 19764-96-6 124351-80-0

RL: USES (Uses)

(sensitizer, for zinc oxide electrophotog. materials for lithog
. plate prepn.)

RN 19764-96-6 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

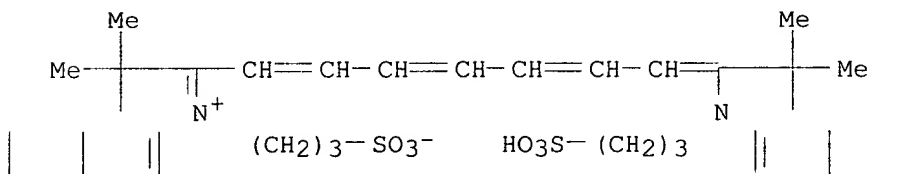
RN 124351-80-0 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-[1,3-dihydro-1,1-dimethyl-3-(3-sulfopropyl)-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrienyl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 104817-02-9

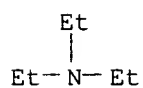
CMF C41 H44 N2 O6 S2



CM 2

CRN 121-44-8

CMF C6 H15 N



L18 ANSWER 37 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1990:414783 HCAPLUS

DN 113:14783

TI Electrophotographic photoreceptor with double laminated photosensitive layers containing zinc oxide

IN Morimitsu, Yoshinori; Taguchi, Takao

PA Toppan Printing Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03G005-08

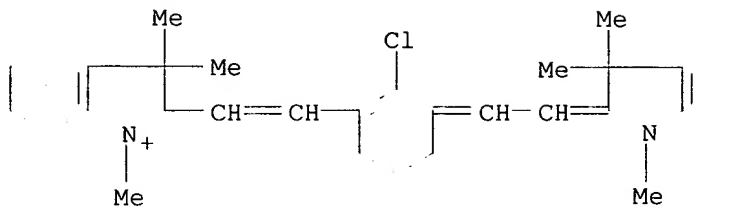
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01257852	A2	19891013	JP 1988-85570	19880407
AB	The title photoreceptor comprises an elec. conductive support and double laminated photosensitive layers. contg. Zn oxide, an electron-attracting compd., a dye sensitizer, and a binder resin, in which the top layer has 50-90 wt.% Zn oxide and the base layer has 40-80 wt.% Zn oxide (both based on the total solids) with the difference of the content at 5-30 wt.%. The photoreceptor gives high-quality images by using a semiconductor laser. Thus, an Al-deposited film was coated with a compn. contg. a near IR- and visible light-sensitive cyanine dye , ZnO, an acrylic styrene polymer, and phthalic anhydride and overcoated with a compn. contg. the dye, ZnO, the acrylic polymer, and phthalic anhydride to give a photoreceptor. A lithog. plate prepd. from the photoconductor gave high-quality printed images without scumming.				
ST	electrophotog photoreceptor zinc oxide; lithog plate photoconductor zinc oxide				
IT	Lithographic plates (double-layer electrophotog. photoreceptor contg. zinc oxide for prodn. of)				
IT	Electrophotographic photoconductors (double-layer, with different zinc oxide content, for lithog. plate prodn.)				
IT	85-44-9, Phthalic anhydride RL: USES (Uses) (double-layered zinc oxide electrophotog. photoconductor contg. electron-attracting agent from, for lithog. plate prodn.)				
IT	1314-13-2, Zinc oxide, uses and miscellaneous RL: USES (Uses) (electrophotog. photoreceptor with double-laminated layer contg. different contents of, for lithog. plate prodn.)				
IT	102185-03-5 RL: USES (Uses) (photosensitizer, for double-layered electrophotog. photoconductor contg. zinc oxide, for lithog. plate prodn.)				
IT	102185-03-5 RL: USES (Uses) (photosensitizer, for double-layered electrophotog. photoconductor contg. zinc oxide, for lithog. plate prodn.)				
RN	102185-03-5 HCAPLUS				
CN	3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)				

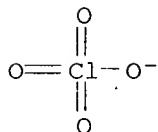
CM 1

CRN 69415-17-4
CMF C32 H36 Cl N2



CM 2

CRN 14797-73-0
CMF Cl O4

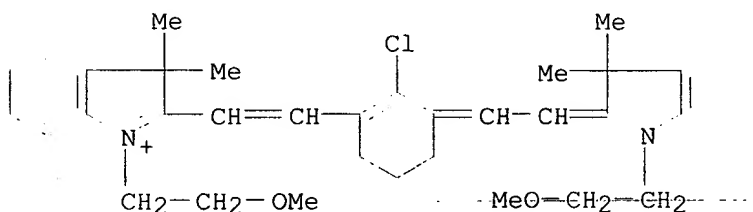


L18 ANSWER 38 OF 44 HCAPLUS COPYRIGHT 2002 ACS
AN 1990:207998 HCAPLUS
DN 112:207998
TI Manufacture of electrophotographic lithographic plate
IN Hirayama, Shigeru; Morimitsu, Yoshinori; Inaba, Yoshimi
PA Toppan Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03G013-28
ICS B41N001-14
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

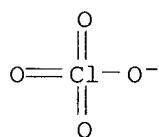
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01229269	A2	19890912	JP 1988-55493	19880309
	JP 2570365	B2	19970108		
AB	The title method comprises (1) coating photoconductive toners contg. a Zn oxide, a cyanine dye as a spectral sensitizer for the near IR, and a hydrophobic binder resin on a hydrophilic elec. conductive support, (2) charging and exposing, (3) removing exposed toner, and the (4) fixing.				
ST	electrophotog lithog plate manuf				
IT	Electrophotographic sensitizers (cyanine dyes , for near IR region, in lithog. plate prodn.)				
IT	Lithographic plates (electrophotog. fabrication of)				

IT 102185-07-9
 RL: USES (Uses)
 (near-IR spectral sensitizer, electrophotog. lithog.
 plate prodn. with photoconductive toner contg.)
 IT 102185-07-9
 RL: USES (Uses)
 (near-IR spectral sensitizer, electrophotog. lithog.
 plate prodn. with photoconductive toner contg.)
 RN 102185-07-9 HCAPLUS
 CN 3H-Indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-1-(2-methoxyethyl)-3,3-
 dimethyl-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-(2-
 methoxyethyl)-3,3-dimethyl-, perchlorate (9CI) (CA INDEX NAME)
 CM 1
 CRN 102185-06-8
 CMF C36 H44 Cl N2 O2



CM 2
 CRN 14797-73-0
 CMF Cl O4

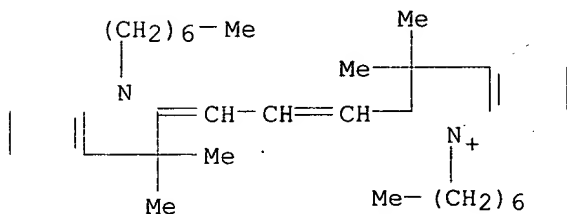


L18 ANSWER 39 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1989:644367 HCAPLUS
 DN 111:244367
 TI Photosensitive lithographic plates
 IN Kita, Nobuyuki; Koike, Mitsuru
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03C001-68
 ICS C08F002-50; G03C001-68; G03F007-02
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 01013139 A2 19890118 JP 1987-168193 19870706
 AB The title plates sensitive to visible light and developable with aq. weak alkalis are formed by placing, on a substrate, a photopolymerizable compn. from photopolymerizable monomer with .gtoreq.1 ethylenic unsatn., org. cationic color compd. organoboron anion salt, and linear polymer selected from copolymers of allyl (meth)acrylate and optional vinyl comonomers.
 ST photosensitive lithog plate linear polymer; allyl acrylate polymer lithog plate; cationic dye borate photosensitizer
 IT **Dyes, cyanine**
 (borates, photosensitizers, for acrylic lithog. plates)
 IT Lithographic plates
 (photoresistance)
 IT Resists
 (photo-, acrylic polymers, with **cyanine dye** borate sensitizers)
 IT Polymerization catalysts
 (photochem., **cyanine dye** borates, for acrylic lithog. plates)
 IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 109115-61-9
 109180-22-5
 RL: USES (Uses)
 (lithog. plates, photosensitizers for)
 IT 4986-89-4, Pentaerythritol tetraacrylate 110220-20-7
 RL: USES (Uses)
 (photoresist to lithog. plate compns. contg.)
 IT **117522-03-9** 120307-08-6 **121431-64-9** 124086-15-3
 RL: USES (Uses)
 (photosensitizers, for acrylic lithog. plates)
 IT **117522-03-9 121431-64-9**
 RL: USES (Uses)
 (photosensitizers, for acrylic lithog. plates)
 RN 117522-03-9 HCAPLUS
 CN 3H-Indolium, 1-heptyl-2-[3-(1-heptyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-, (T-4)-butyltriphenylborate(1-) (9CI)
 (CA INDEX NAME)

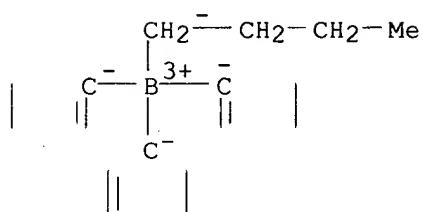
CM 1

CRN 117522-02-8
 CMF C37 H53 N2



CM 2

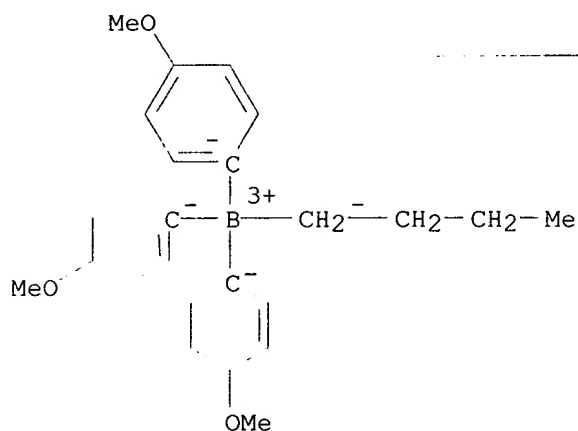
CRN 47252-39-1
 CMF C22 H24 B
 CCI CCS
 CDES 7:T-4



RN 121431-64-9 HCAPLUS
 CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, (T-4)-butyltris(4-methoxyphenyl)borate(1-)
 (9CI) (CA INDEX NAME)

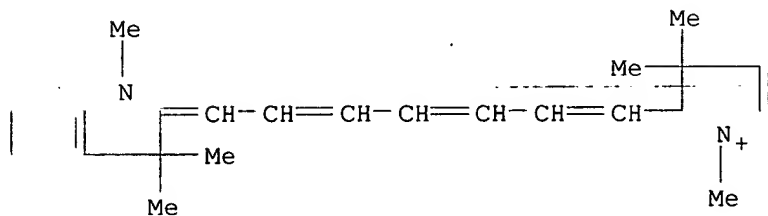
CM 1

CRN 121431-62-7
 CMF C25 H30 B O3
 CCI CCS
 CDES 7:T-4



CM 2

CRN 47676-39-1
 CMF C29 H33 N2



L18 ANSWER 40 OF 44 HCAPLUS COPYRIGHT 2002 ACS
 AN 1989:644365 HCAPLUS
 DN 111:244365
 TI Photopolymerizable compositions for high-resolution lithographic plates
 IN Koike, Mitsuru; Aoso, Toshiaki; Kita, Nobuyuki
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF

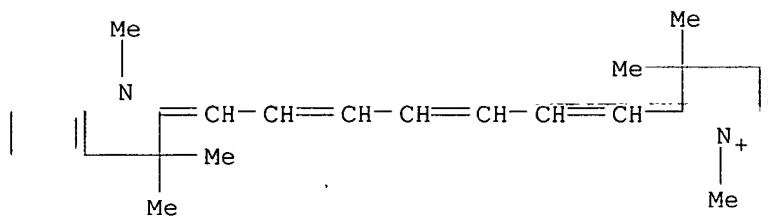
DT Patent
 LA Japanese
 IC ICM G03C001-68
 ICS C08F002-50
 ICA G03C005-16
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01013142	A2	19890118	JP 1987-168192	19870706
AB	The title compns. sensitive to Ar laser contain photopolymerizable monomer with .gtoreq.1 ethylenic unsatn., R1R2R3R4B- Z+ (E1-4 = alkyl, aryl group or derivs.; .gtoreq.2 of k1-4 together may form rings; .gtoreq.1 of R1-4 = alkyl; Z+ = alkali metal ion, quaternary ammonium), and D+A- (D+ = cationic org. dye; A- = anion).				
ST	borate photosensitizer lithog plate; cationic dye photosensitizer lithog plate				
IT	Lithographic plates (acrylic, photosensitizers for)				
IT	Dyes, cyanine Quaternary ammonium compounds, uses and miscellaneous RL: USES (Uses) (photosensitizers contg., for acrylic lithog. plates)				
IT	Resists (photo-, acrylic, photosensitizers for)				
IT	Polymerization catalysts (photochem., for acrylic lithog. plates)				
IT	90216-38-9, Allyl methacrylate-methacrylic acid copolymer			110220-20-7	
	RL: USES (Uses) (lithog. plates contg., photosensitizers for)				
IT	92-32-0 989-38-8 61575-73-3		117522-01-7	121458-82-0	
	123316-86-9 123316-87-0				
	RL: CAT (Catalyst use); USES (Uses) (photopolymn. catalysts contg., for acrylic lithog. plates)				
IT	61575-73-3 123316-86-9 123316-87-0 RL: CAT (Catalyst use); USES (Uses) (photopolymn. catalysts contg., for acrylic lithog. plates)				
RN	61575-73-3 HCAPLUS				
CN	3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)				

CM 1

CRN 47676-39-1
 CMF C29 H33 N2

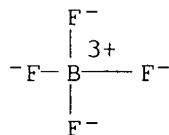


CM 2

CRN 14874-70-5

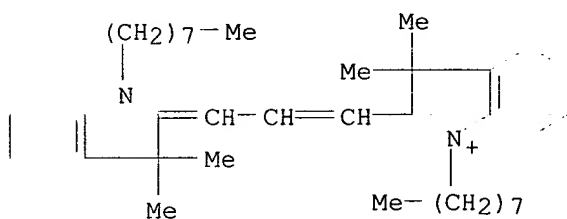
CMF B F4

CCI CCS



RN 123316-86-9 HCAPLUS

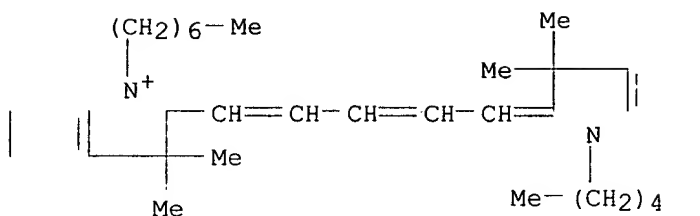
CN 3H-Indolium, 2-[3-(1,3-dihydro-3,3-dimethyl-1-octyl-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-1-octyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

RN 123316-87-0 HCAPLUS

CN 3H-Indolium, 2-[5-(1,3-dihydro-3,3-dimethyl-1-pentyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1-heptyl-3,3-dimethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

L18 ANSWER 41 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1986:505696 HCAPLUS

DN 105:105696

TI Panchromatic silver halide photographic element

IN Endo, Kazunaka; Yamamoto, Kyonosuke; Kanada, Eiji; Suzuki, Shigeyoshi

PA Mitsubishi Paper Mills, Ltd., UK

SO Brit. UK Pat. Appl., 27 pp.

CODEN: BAXXDU

DT Patent

LA English

IC ICM G03C001-16

ICS G03C005-54

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2161948	A1	19860122	GB 1985-13411	19850528
	GB 2161948	B2	19870729		
	JP 60252352	A2	19851213	JP 1984-109281	19840529
	JP 02048107	B4	19901024		
	JP 61011735	A2	19860120	JP 1984-132278	19840626
	JP 03044289	B4	19910705		
PRAI	JP 1984-109281		19840529		
	JP 1984-132278		19840626		

GI For diagram(s), see printed CA Issue.

AB A panchromatic Ag halide photog. element for use in a Ag complex diffusion-transfer process contains a blue-sensitizing dye of the formula I (R, R1 = aliph. groups, at least one of which having a sulfo group; X = a cation; m = 0, 1; A = a benzothiazole, benzoxazole, or benzoselenazole nucleus substituted at the 5- and/or 6-position; A' = a naphtholtriazole, naphthoselenazole, or naphthoxazole nucleus). The element, which is convertible to a lithog. printing plate by the DTR process, has a high level of sensitivity, contrast, and resoln., esp. a high sensitivity to the blue region of the spectrum and a capability of producing a large no. of color prints with excellent color reproducibility. Thus, a subbed polyester support was coated on 1 side with a matting layer and on the other side with an antihalation layer. The support was then coated with a Au- and S-sensitized gelatin-Ag(Cl,I) emulsion layer contg. II 12 .times. 10-5, III 12 .times. 10-5, IV 12.5 .times. 10-5, and V 4.2 .times. 10-2 mol/mol Ag halide, dried, exposed, and developed to a red speed and .gamma., green speed and .gamma., and blue speed and .gamma. of 100 and 2.6, 75 and 2.5, and 20 and 2.1, resp., and excellent resolving power and

printing endurance.

ST **cyanine dye** sensitizer photog film; panchromatic
photog film spectral sensitizer; lithog plate panchromatic photog material

IT Photographic emulsions
(panchromatic)

IT Lithographic plates
(panchromatic photog. materials contg. **cyanine dye**
blue sensitizer for fabrication of)

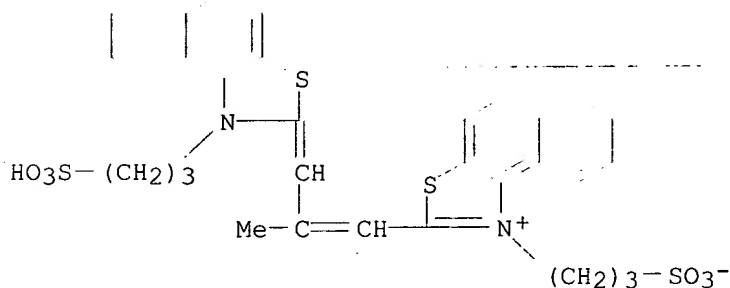
IT Photographic sensitizers
(spectral, **cyanine dyes** as, for panchromatic
materials for lithog. plate fabrication)

IT 16704-72-6 23216-67-3 29133-39-9 55425-25-7
81362-14-3 102731-81-7 102731-84-0 102731-85-1 102731-86-2
102731-87-3 102731-88-4 102738-84-1 103974-20-5 103974-21-6
104006-79-3
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. spectral sensitizer, for panchromatic materials for
lithog. plate fabrication)

IT 16704-72-6 23216-67-3
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. spectral sensitizer, for panchromatic materials for
lithog. plate fabrication)

RN 16704-72-6 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[2-methyl-3-[3-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]-1-propenyl]-1-(3-sulfopropyl)-, inner salt (9CI)
(CA INDEX NAME)



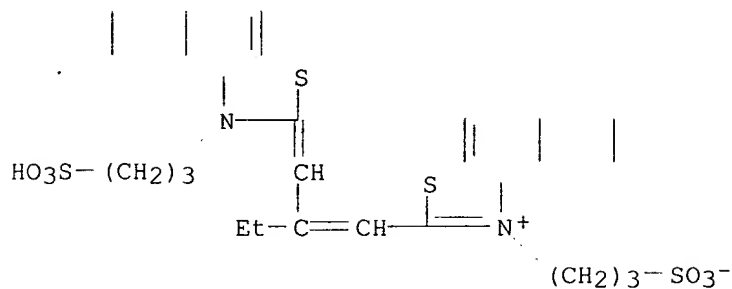
RN 23216-67-3 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-(3-sulfopropyl)-2-[2-[[1-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]methyl]-1-butenyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 4622-66-6

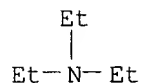
CMF C33 H32 N2 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



L18 ANSWER 42 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1986:216544 HCAPLUS

DN 104:216544

TI Photosolubilizable compositions

IN Newman, Stephen

PA Minnesota Mining and Mfg. Co. , USA

SO Eur. Pat. Appl., 55 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 146411	A2	19850626	EP 1984-308904	19841219
	EP 146411	A3	19870204		
	EP 146411	B1	19910731		
	R, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	ZA 8409517	A	19860730	ZA 1984-9517	19841205
	AU 8436481	A1	19850627	AU 1984-36481	19841211
	AU 583485	B2	19890504		
	CA 1262793	A1	19891107	CA 1984-470287	19841217
	JP 60175046	A2	19850909	JP 1984-268201	19841219
	JP 2577718	B2	19970205		
BR 8406563	A	19851015	BR 1984-6563	19841219	
PRAI	GB 1983-33901		19831220		

AB A photosensitive compn. for the prepn. of lithog. plates is comprised of an onium salt and an alkali-sol. phenolic resin. The onium salt is selected from iodonium, sulfonium, phosphonium, bromonium, chloronium, oxysulfoxonium, oxysulfonium, sulfoxonium, selenonium, telluronium, and arsonium salts. A spectral sensitizer selected from diphenylmethane,

xanthene, acridine, methine and polymethine (including oxonol, cyanine, and merocyanine) dyes and derivs. of thiazole, thiazine, azine, amino ketone, aminotriazylmethane, diphenylisobenzofuran, diarylfuran, diarylcyclopentadiene, diarylthiofuran, diarylpyrrole, coumarin, etc. may be added to the compn. Thus, BKR 2620 (a phenolic resin) 0.125 and diphenyliodonium hexafluorophosphate 0.2 g were dissolved in 2-butanone 3-75 g, coated on a grained Al substrate, air dried, baked at 100.degree., exposed to-UV-radiation from a metal halide lamp, and developed in a 6% aq. Na metasilicate soln. to leave a high-quality pos. image of the hydrophobic phenolic resin on a hydrophilic Al substrate.

ST photosolubilizing phenolic resin onium salt; lithog plate

IT photosolubilizing phenolic resin

IT Phenolic resins, uses and miscellaneous

RL: PREP (Preparation)
(alkali-sol., photosolubilizable compns. contg. onium salt and, for prepn. of lithog. plates)

IT Lithographic plates
(photosolubilizable compns. contg. alkali-sol. phenolic resin and onium salt for prepn. of)

IT Onium compounds

RL: PREP (Preparation)
(salts, photosolubilizable compns. contg. alkali-sol. phenolic resin and, for prepn. of lithog. plates)

IT 102-82-9

RL: USES (Uses)
(photosolubilizable compns. contg. alkali-sol. phenolic resin and onium salt and, for prepn. of lithog. plates)

IT 101-61-1

RL: USES (Uses)
(photosolubilizable compns. contg. alkali-sol. phenolic resin and onium salt and, for prepn. of lithog. plates with visible images)

IT 1483-73-4 6185-59-7 19028-28-5 52754-92-4 58109-40-3 60565-87-9
60565-88-0 80621-45-0 87412-23-5 94564-98-4 102387-50-8
102387-55-3

RL: USES (Uses)
(photosolubilizable compns. contg. alkali-sol. phenolic resin and, for prepn. of lithog. plates)

IT 9003-35-4 80111-59-7 102324-87-8

RL: USES (Uses)
(photosolubilizable compns. contg. onium salt and, for prepn. of lithog. plates)

IT 78902-43-9 78902-47-3 82926-13-4 82926-21-4
82926-23-6 94564-85-9 101186-27-0 102387-52-0
102387-53-1 102387-54-2

RL: USES (Uses)
(spectral sensitizer, for photosolubilizable compns. contg. alkali-sol. phenolic resin and onium salt for prepn. of lithog. plates)

IT 82926-13-4 82926-21-4 82926-23-6
102387-52-0 102387-53-1

RL: USES (Uses)
(spectral sensitizer, for photosolubilizable compns. contg. alkali-sol. phenolic resin and onium salt for prepn. of lithog. plates)

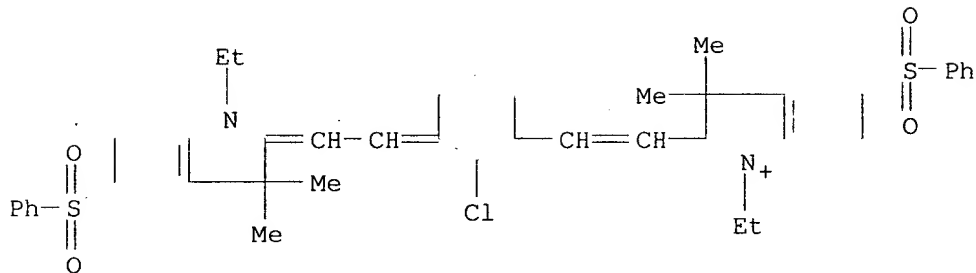
RN 82926-13-4 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1-ethyl-1,3-dihydro-3,3-dimethyl-5-(phenylsulfonyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-5-(phenylsulfonyl)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 82926-12-3

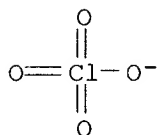
CMF C46 H48 Cl N2 O4 S2



CM 2

CRN 14797-73-0

CMF Cl O4



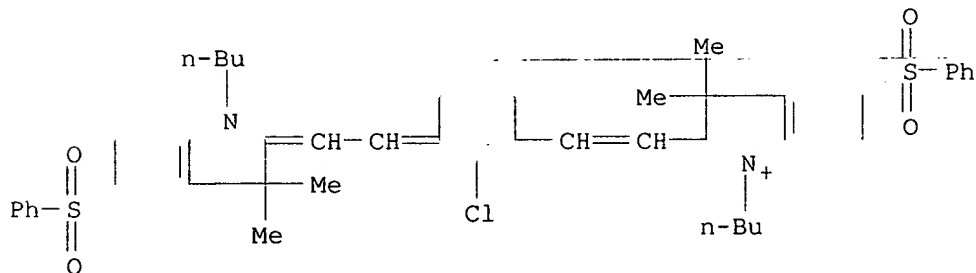
RN 82926-21-4 HCAPLUS

CN 3H-Indolium, 1-butyl-2-[2-[3-[[1-butyl-1,3-dihydro-3,3-dimethyl-5-(phenylsulfonyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-(phenylsulfonyl)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 82926-20-3

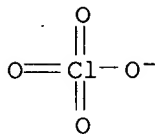
CMF C50 H56 Cl N2 O4 S2



CM 2

CRN 14797-73-0

CMF C1 O4



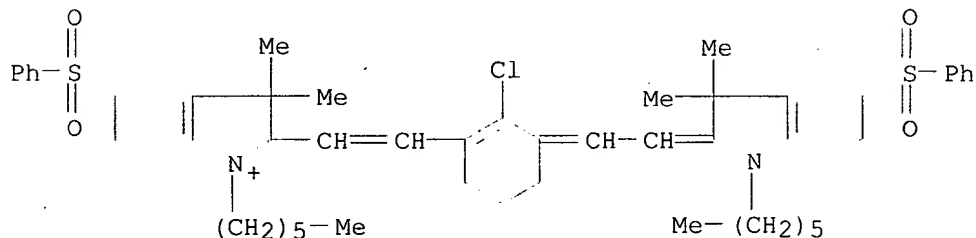
RN 82926-23-6 HCAPLUS

CN 3H-Indolium, 2-[2-[2-chloro-3-[[1-hexyl-1,3-dihydro-3,3-dimethyl-5-(phenylsulfonyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-hexyl-3,3-dimethyl-5-(phenylsulfonyl)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 82926-22-5

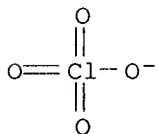
CMF C54 H64 Cl N2 O4 S2



CM 2

CRN 14797-73-0

CMF C1 O4



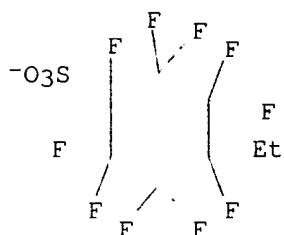
RN 102387-52-0 HCAPLUS

CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl-, salt with 4-ethyl-1,2,2,3,3,4,5,5,6,6-decafluorocyclohexanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 102387-51-9

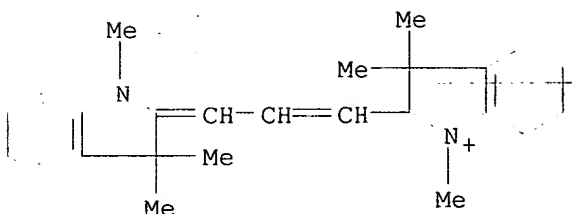
CMF C8 H5 F10 O3 S



CM 2

CRN 20766-56-7

CMF C25 H29 N2



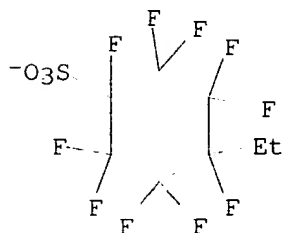
RN 102387-53-1 HCAPLUS

CN 3H-Indolium, 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1,3,3-trimethyl-, salt with 4-ethyl-1,2,2,3,3,4,5,5,6,6-decafluorocyclohexanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 102387-51-9

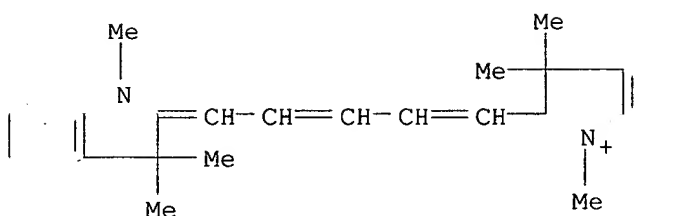
CMF C8 H5 F10 O3 S



CM 2

CRN 48221-03-0

CMF C27 H31 N2



L18 ANSWER 43 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1986:120050 HCAPLUS

DN 104:120050

TI Laser-processed lithographic materials

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-06

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60123845	A2	19850702	JP 1983-233099	19831209
	JP 04006938	B4	19920207		

GI For diagram(s), see printed CA Issue.

AB The title material has a support, an antihalation layer, a Ag halide emulsion layer, and a layer contg. nuclei for phys. development, and the Ag halide emulsion layer, in which .gtoreq.98% of the Ag halide is AgCl, contains .gtoreq.1 cyanine compd. of the general formula I (R = C1-4 alkyl; R1, R2 = lower alkyl, hydroxyalkyl, sulfoalkyl, carboxylalkyl; Z, Z1 = O, S, Se; A, A1 = (substituted) condensed benzene or naphthalene ring; M = alkali metal ion, ammonium; n = 0, 1). The material is esp. suitable for prepn. of lithog. plates using laser irradiation. Thus, a corona-treated polyethylene-laminated paper support was coated with an antihalation layer contg. C black, gelatin, saponin, silica (Syloid 308), phenidone, hydroquinone, and HCHO. A AgCl emulsion was Au- and S-sensitized, II 0.3 mg/mol AgCl and 4-hydroxy-6-methyl-1,3,3a,7-tetrazaindene added, the emulsion coated on the support material (0.8 g Ag/m²) after addn. of isoamyl decyl sodiosulfosuccinate, seasoned for 3 days, coated with a compn. contg. a Au colloid, a poly(vinyl alc.) reaction product with maleic anhydride-Me vinyl ether copolymer, and saponin to form a layer contg. 2.5 mg Au/m², recorded on with a modulated He-Ne laser in a facsimile device, and treated in an alk. activating bath (contg. Na₂SO₃, KOH, and Na thiosulfate) and a stabilizer bath (contg. Na citrate, citric acid, and ethylene glycol) to give a lithog. plate. Sharply defined images having high contrast (.gamma. 2.3) and excellent quality were obtained, when a laser scan speed of 0.9 m/s was employed. Printing tests of a similarly prepd. material using III instead of II gave .gtoreq.5000 prints without blemishes.

ST lithog material laser silver halide; silver chloride lithog material sensitizer; **cyanine dye** laser lithog material

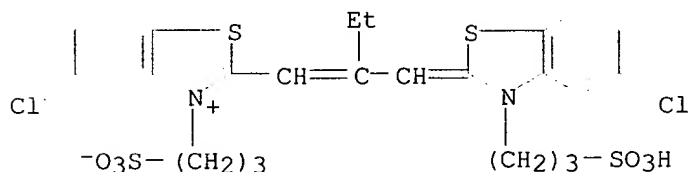
IT Saponins

Silica gel, uses and miscellaneous

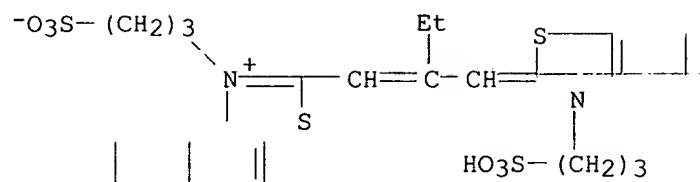
RL: PREP (Preparation)

(antihalation layer contg. carbon black and, for laser-sensitive silver

- halide materials for lithog. plate prepn.)
- IT Carbon black, uses and miscellaneous
RL: PREP (Preparation)
(antihalation layer contg., for laser-sensitive silver halide materials for lithog. plate prepn.)
- IT Lithographic plates
(laser-sensitive material contg. antihalation layer and **cyanine dye**-contg. silver halide emulsion layer and phys. development nuclei layer for prepn. of)
- IT 50-00-0, uses and miscellaneous 92-43-3 123-31-9, uses and miscellaneous
RL: USES (Uses)
(antihalation layer contg. carbon black and, for laser-sensitive silver halide materials for lithog. plate prepn.)
- IT 7440-57-5, uses and miscellaneous
RL: USES (Uses)
(colloidal, phys. development nuclei, for laser-sensitive silver halide photog. materials for lithog. plate prepn.)
- IT 56-81-5, uses and miscellaneous 2503-56-2 10043-35-3, uses and miscellaneous 15182-68-0 72796-95-3 100842-97-5D, ester with maleic anhydride-Me vinyl ether copolymer
RL: USES (Uses)
(laser-sensitive silver halide photog. material contg., for lithog. plate prepn.)
- IT 18360-25-3 **23568-98-1** 29133-39-9 37919-81-6
50829-21-5 52685-95-7 65293-94-9 65814-89-3
100846-19-3 100846-20-6 100895-48-5
RL: USES (Uses)
(sensitizer, for laser-sensitive silver halide photog. material for lithog. plate prepn.)
- IT **23568-98-1 50829-21-5 100846-19-3**
100846-20-6 100895-48-5
RL: USES (Uses)
(sensitizer, for laser-sensitive silver halide photog. material for lithog. plate prepn.)
- RN 23568-98-1 HCAPLUS
- CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolyliidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



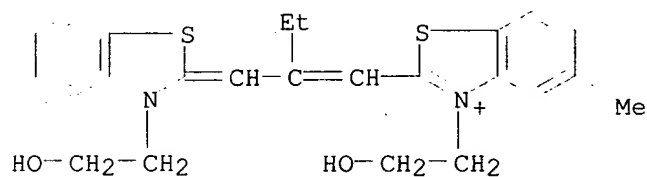
- RN 50829-21-5 HCAPLUS
- CN Naphtho[1,2-d]thiazolium, 1-(3-sulfopropyl)-2-[2-[[3-(3-sulfopropyl)-2(3H)-benzothiazolyliidene]methyl]-1-butenyl]-, inner salt (9CI) (CA INDEX NAME)



RN 100846-19-3 HCAPLUS
 CN Benzothiazolium, 3-(2-hydroxyethyl)-2-[2-[[3-(2-hydroxyethyl)-2(3H)-benzothiazolyliidene]methyl]-1-butenyl]-5-methyl-, perchlorate (salt) (9CI)
 (CA INDEX NAME)

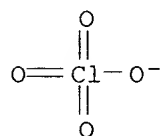
CM 1

CRN 100846-18-2
 CMF C24 H27 N2 O2 S2

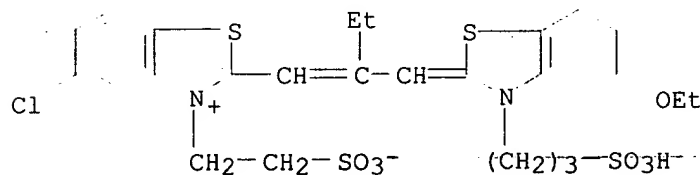


CM 2

CRN 14797-73-0
 CMF Cl O4

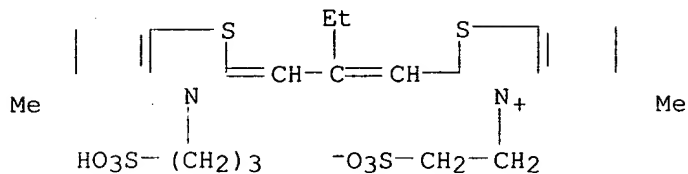


RN 100846-20-6 HCAPLUS
 CN Benzothiazolium, 5-chloro-2-[2-[[5-ethoxy-3-(3-sulfopropyl)-2(3H)-benzothiazolyliidene]methyl]-1-butenyl]-3-(2-sulfoethyl)-, inner salt (9CI)
 (CA INDEX NAME)



RN 100895-48-5 HCAPLUS
 CN Benzothiazolium, 5-methyl-2-[2-[[5-methyl-3-(3-sulfopropyl)-2(3H)-benzothiazolyliidene]methyl]-1-butenyl]-3-(2-sulfoethyl)-, inner salt (9CI)

(CA INDEX NAME)



L18 ANSWER 44 OF 44 HCAPLUS COPYRIGHT 2002 ACS

AN 1985:195228 HCAPLUS

DN 102:195228

TI Lithographic printing plates

IN Saikawa, Masahiko; Kanada, Eiji; Tanaka, Akira; Endo, Kazunaka

PA Mitsubishi Paper Mills, Ltd., Japan

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03C005-54

ICS G03C001-19

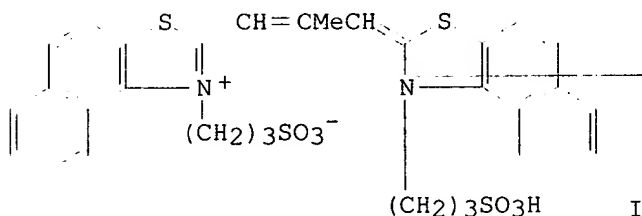
NCL 430204000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4501811	A	19850226	US 1983-541656	19831013
	JP 59071055	A2	19840421	JP 1982-181756	19821016
	JP 63036662	B4	19880721		
	JP 60029751	A2	19850215	JP 1983-131388	19830718
	JP 01027416	B4	19890529		
PRAI	JP 1982-181756		19821016		
	JP 1983-131388		19830718		

GI



AB A photog. element is described which is useful for lithog. printing plate fabrication. The element providing printing plates with high printing endurance contains an Ag halide emulsion sensitized with an anion- or betaine-type meso-substituted trimethine **cyanine dye** having .gtoreq.1 .beta.-naphthothiazole nucleus. The element is imagewise exposed to a radiation from a Ne-He laser or a light-emitting diode and then subjected to Ag complex diffusion transfer development. Thus, a subbed polyester support was coated with an antihalation undercoat, coated with a AgCl emulsion contg. SiO₂ 5 wt.%, Rh chloride 5 .times. 10⁻⁶, I 3

.times. 10-4 mol/mol Ag halide, HCHO 5 mg/1 g gelatin, dried, heated at 40.degree. for 14 days, overcoated with a nuclei coating compn. (Kokai, No. 21,602/78). The material was imagewise exposed for 10-5 s to a Ne-He laser radiation, developed with a compn. contg. KOH 20, Na2SO3 50, 2-mercaptobenzoic acid 1.5, 2-methylaminoethanol 15 g, H2O to 1 L, treated with a neutralizer soln. contg. citric acid 10, Na citrate 35 g, 20% colloidal SiO2 5, ethylene glycol 5 mL, H2O to 1 L, to provide a photosensitive material sharpness and resolving power of which were evaluated using gray contact screens having 100, 133, 150, 175 and 200 lines/in. The lithog. plate obtained by use of the contact screen from the photosensitive material was mounted on an offset press, applied with an etch soln. (iso-PrOH 400, H2O 600 mL, ethylene glycol 50, 3-mercapto-4-acetamido-5-heptyl-1,2,4-triazole 1 g) and printing was run using a fountain soln. contg. orthophosphonic acid 10, Ni nitrate 5, Na2SO3 5, ethylene glycol 100, 28% colloidal soln. 28 g, H2O to 2 L.

ST lithog plate photog emulsion sensitization; trimethine **cyanine dye** photog lithog

IT Lithographic plates

(photog. element for prepn. of, trimethine **cyanine dye** sensitizers for)

IT Photographic sensitizers

(trimethine **cyanine dyes**, for prepn. of elements for fabrication of lithog. printing plates)

IT 16704-72-6 47866-83-1 69055-34-1

91308-26-8 91308-27-9 96236-17-8

RL: USES (Uses)

(photog. emulsion sensitized with, for lithog. printing plates fabrication)

IT 16704-72-6 47866-83-1 69055-34-1

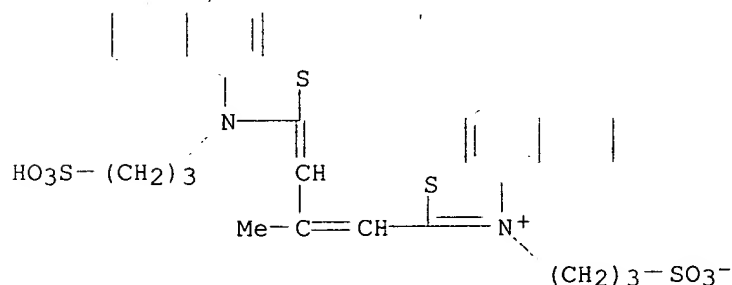
91308-26-8 91308-27-9 96236-17-8

RL: USES (Uses)

(photog. emulsion sensitized with, for lithog. printing plates fabrication)

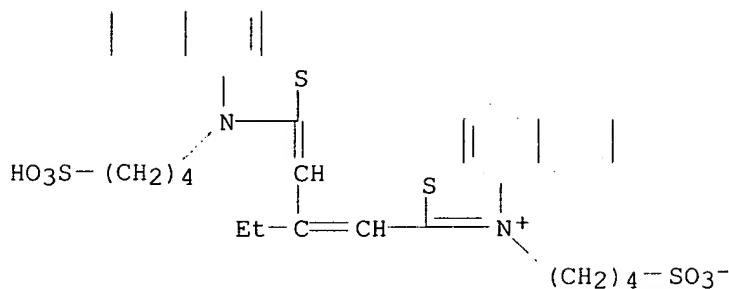
RN 16704-72-6 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[2-methyl-3-{3-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]-1-propenyl]-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



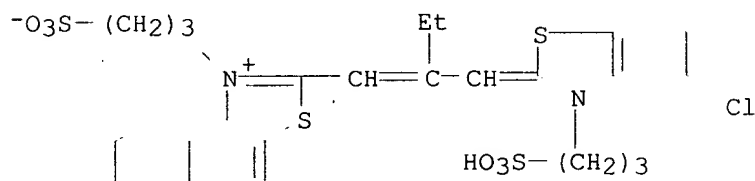
RN 47866-83-1 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-(4-sulfobutyl)-2-[2-[[1-(4-sulfobutyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]methyl]-1-butenyl]-, inner salt (9CI) (CA INDEX NAME)



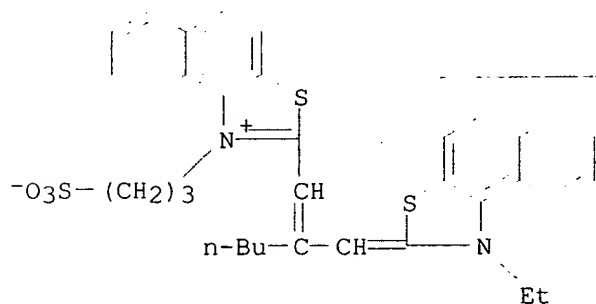
RN 69055-34-1 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylydene)methyl]-1-butenyl]-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



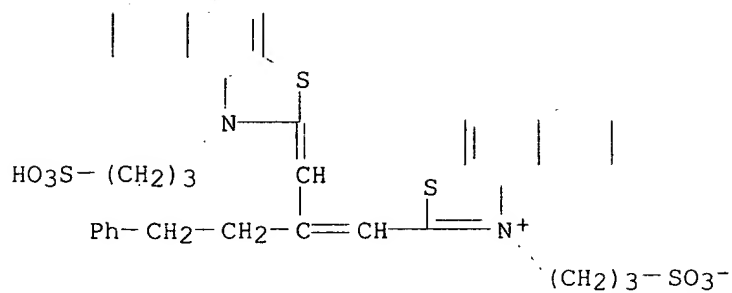
RN 91308-26-8 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[2-[(3-ethylnaphtho[1,2-d]thiazol-2(1H)-ylidene)methyl]-1-hexenyl]-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 91308-27-9 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[4-phenyl-2-[[1-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene)methyl]-1-butenyl]-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 96236-17-8 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[2-[[5-phenyl-3-(3-sulfopropyl)-2(3H)-benzothiazolylydene]methyl]-1-butenyl]-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

